

# **SCL800SM-3X- Hooklift**

## **Automated Self Contained Leaf Collector**



**Owner's Manual  
Safety Manual  
Pre-Operating Manual  
Operating Manual  
Maintenance Manual  
Service Manual  
Parts Catalog**

**May 2015 Edition**

ODB Company  
5118 Glen Alden Drive  
Richmond, VA 23231  
800-446-9823  
[www.leafcollector.com](http://www.leafcollector.com)



MUNICIPAL PRODUCTS  
SINCE 1910

517190

**Front Cover**

 **CAUTION**

**DO NOT ATTEMPT TO OPERATE  
OR REPAIR  
THE LEAF COLLECTOR WITHOUT FIRST  
READING AND UNDERSTANDING THIS  
MANUAL**

IF YOU HAVE ANY QUESTIONS CONCERNING THE  
INSTALLATION OR OPERATION OF THIS UNIT, PLEASE CALL  
ODB FOR ASSISTANCE BEFORE ATTEMPTING TO REPAIR OR  
OPERATE THE UNIT.

**IMPROPER USE OF ANY MACHINE CAN  
RESULT IN SERIOUS INJURY!**

**STUDY AND FOLLOW ALL SAFETY  
PRECAUTIONS BEFORE OPERATING OR  
REPAIRING UNIT**

THIS MANUAL IS AN INTEGRAL PART OF THE LEAF COLLECTOR AND SHOULD  
BE KEPT WITH THE UNIT WHEN IT IS SOLD.

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
800-446-9823



# Safety Section

## WARNING

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.



# DANGER

## DO NOT RIDE, SIT OR STAND ON UNIT.

**RIDING ON UNIT  
COULD RESULT IN BODILY  
HARM OR FATAL INJURY  
USE EXTREME CAUTION WHEN  
UNIT IS IN USE, OR IN MOTION.**

If the decal above is missing or damaged call ODB immediately and we will send you a replacement free of charge. Never operate a unit with damaged or missing safety decals.

 DANGER

DO NOT RIDE, SIT OR STAND ON UNIT

 DANGER

DO NOT MODIFY THE UNIT FOR RIDERS IN ANY WAY. SERIOUS INJURY OR DEATH MAY OCCUR

ODB's leaf collectors are NEVER to be used to accommodate riders. If your unit has been modified to accommodate riders, remove these modifications immediately as this can result in serious injury or death.

Municipal Products  
Since 1910



Municipal Products  
Since 1910

**ODB COMPANY**  
**5118 Glen Alden Drive**  
**Richmond, VA 23231**  
**800-446-9823**  
**www.odbco.com or**  
**www.leafcollector.com**

# THANK YOU

Thank you and Congratulations on your purchase of your ODB Leaf Collector. Your ODB leaf collector has been carefully designed and manufactured to give you a maximum amount of dependability and years of trouble-free operation. Take comfort in the fact the ODB has been manufacturing municipal products since 1910 and takes pride in our product's quality and our customer service.

Please take the time to thoroughly read this manual, as well as the engine manual, in its entirety before operating, maintaining, servicing or repairing your leaf collector. Please thoroughly review and follow all the safety procedures located in this manual.

Whenever you need replacement parts, service information or any question regarding your ODB product please feel free to contact us at 800-446-9823 or [www.odbco.com](http://www.odbco.com).

Please record the following information for future reference:

Model No.:	_____
Serial No.:	_____
Vin No:	_____
Engine Serial No.:	_____
Date of Purchase:	_____

# Table of Contents



**WARNING** Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

## Table of Contents

### Contents

Front Cover .....	1
Table of Contents .....	5
<b>1.0 GENERAL SAFETY</b>	
1.1 Safety Symbol Definitions .....	11
1.2 Do's and Do Not's:.....	12
1.3 Training:.....	14
1.4 Safety Decals .....	15
1.5 Serial Number Location.....	17
<b>2.0 PRE-OPERATING SECTION</b>	
2.1 IQAN Display System and Controls - Overview.....	19
2.1 IQAN Display System and Controls - Overview.....	20
2.1 IQAN Display System and Controls - Overview.....	21
2.2 Joystick Controls: .....	22
2.2 Safe Operations:.....	23
2.3 Preparation For Operation.....	25
2.4 Pre-Transport Checks.....	26
2.5 Personal Protective Equipment and Clothing .....	27
2.6 Work Site Preparation .....	28
<b>3.0 OPERATING SECTION</b>	
3.1 Starting Engine.....	30
3.1 Starting Engine, continued;.....	31
3.2 Engaging the Standard PTO.....	32
3.3 Fluid Drive Coupler (if equipped) .....	33
3.4 Hose Boom Operation - 3 Axis.....	34
3.4 Hose Boom Operation - 3 Axis, cont. ....	35
3.4 Hose Boom Operation - 3 Axis, cont. ....	36
3.4 Hose Boom Operation - 3 Axis, cont. ....	37
3.5 Dumping the Body.....	38
3.5 Dumping the Body, continued .....	39
3.5 Dumping the Body, continued .....	40
3.6 Unloading the Unit Completely.....	41
<b>4.0 MAINTENANCE SECTION</b>	
4.1 Maintenance Overview: .....	43
4.2 Maintenance and Lubrication .....	44
4.3 Lubrication:.....	45
4.3 Lubrication, continued; .....	46
4.3 Lubrication, continued; .....	47
4.4 Preventative Maintenance .....	48
4.5 Torque Values .....	53

# Table of Contents

## **⚠ WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

4.6 Quick Reference Chart.....	54
4.7 Kraft Fluid Drive Maintenance (Optional) .....	55
<b>5.0 SERVICE SECTION</b>	
5.1 Removing Blower Housing Face .....	59
5.2 Replacing the Drive Belt (if equipped).....	60
5.2 Replacing the Drive Belt (if equipped), .....	61
5.3 Replacing the Drive Bearings(if equipped) .....	62
5.3 Replacing the Drive Belt (if equipped), .....	63
5.3 Replacing the Drive Bearings (if equipped), continued.....	64
5.4 Impeller Installation and Removal.....	65
5.4 Impeller Installation and Removal.....	65
5.4 Impeller Installation and Removal, continued.....	66
5.5 Replacing the Blower Housing Liners.....	67
5.5 Replacing the Blower Housing Liners; continued,.....	68
5.6 Auto Mfg. Clutch Adjustment - 2008 and after .....	69
<b>5.20 HYDRAULIC DIAGRAM</b>	
5.20.1 Hydraulic Diagram.....	71
5.20.2 Valve Body Hydraulic Diagram.....	72
<b>5.30 IQAN ADVANCED SCREENS</b>	
5.30.1 Adjust Menu.....	74
5.30.1 Adjust Menu.....	75
5.30.2 Measure Menu .....	76
5.30.2 Measure Menu .....	77
5.30.3 Preferences Menu.....	78
5.30.4 Info Menu.....	79
5.30.4 Info Menu.....	79
5.30.4 Info Menu, continued.....	80
5.30.5 IQAN Error Codes .....	81
5.30.5 IQAN Error Codes, continued .....	82
5.30.5 IQAN Error Codes, continued .....	83
5.30.5 IQAN Error Codes, continued .....	84
<b>5.40 WIRING DIAGRAMS</b>	
5.40.1 Wiring Harness Overview Diagram.....	86
5.40.2 Engine Wiring Harness Diagram .....	87
5.40.3 Valve Body Wiring Harness Diagram.....	88
5.40.4 XA2 and XS2 Module Wiring Harness Diagram .....	89
5.40.5 Engine Side Rail Wiring Harness Diagram .....	90
5.40.6 IQAN MD3 Display Wiring Harness Diagram.....	91

**CONTINUED**



# Table of Contents

## **⚠ WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

5.40.7 IQAN E-Stop,Relay,Joystick & Door Lock Diagrams .....	92
5.40.8 IQAN Power Switch and E-Stop Wiring Diagrams.....	93
5.40.9 Hook Lift Truck Harness to Screen Diagrams .....	94
5.40.10 Hook Lift Truck Harness Wiring .....	95
<b>6.0 ENGINE GROUP</b>	
6-0 .....	97
6.1 Air Cleaner Group.....	98
6.2 Sheet Metal Group, SCL 3X .....	99
6.3 Engine Mount Group .....	100
6.4 Muffler (Exhaust) Assembly .....	101
6.5 Radiator Assembly Group.....	102
6.6 Engine Senders / Switch Group .....	103
6.7 Battery Group.....	104
6.8 Engine Miscellaneous Parts Group.....	105
6.9 John Deere Common Engine Parts Group.....	106
6.10 Remote Clutch / Throttle Circuit Board Assembly.....	107
6.11 Remote Clutch and Remote Throttle Assembly.....	108
6.12 Chaffe Eliminator Assembly, hinged .....	109
<b>7.0 CLUTCH GROUP</b>	
7-0 .....	110
7.1 AutoHD PTO Clutch Group.....	111
7.2 AutoHD PTO Assembly Group .....	112
7.3 AutoHD PTO Linkage Group .....	113
7.4 Clutch Assist Group .....	114
7.5 Kraft Fluid Drive Group (Optional).....	115
7.6 Kraft Fluid Drive Installation (Optional).....	116
7.7 Kraft Fluid Drive Breakdown (Optional) .....	117
7.8 Kraft Fluid Drive Common Parts (Optional).....	118
<b>8.0 BLOWER HOUSING GROUP</b>	
8-0 .....	119
8.1 Blower Housing Face Group .....	120
8.2 Belt Drive Assembly .....	121
8.3 Blower Housing Group - Belt Drive.....	122

**CONTINUED**



# Table of Contents



## **WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

<b>9.0 Hydraulic Group</b>	
9-0 .....	123
9.1 Hydraulic Tank Assembly - 3X.....	124
9.2 Valve Body Group.....	125
<b>10.0 Chassis and Hopper Group</b>	
10-0 .....	126
10.1 Fuel Tank Group .....	127
10.2 Box Container Screens.....	128
10.3 Proximity Switch Group .....	129
10.4 Light and Reflector Group .....	130
10.5 Box Interior Group.....	131
10.6 Automated Door Latch Group .....	132
10.7 Hook Lift Wiring Harnesses Group .....	133
10.8 Manual Top Hinged Door (Optional).....	134
10.9 Bottom Exhaust Group (Optional).....	135
10.10 Hood Scoop Group (Optional).....	136
10.11 Chipper Door Group (Optional).....	137
10.12 Light Bar Group (Optional) .....	138
10.13 Backup Camera Group (Optional).....	139
<b>11.0 HOSE BOOM GROUP</b>	
11-0 .....	140
11.1 Boom Assembly, 3 Axis .....	141
11.2 Hinged Boom Frame Assembly - 3 Axis .....	142
11.3 Auburn Gear Drive Assembly - 3 Axis .....	143
11.4 In-Cab Controls Mount - 3 Axis .....	144
<b>INDEX</b>	
Index .....	146



# Safety Section

## **WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

## **1.0 GENERAL SAFETY**

### **1.0 GENERAL SAFETY**

#### **Contents**

Front Cover .....	1
Table of Contents .....	5
<b>1.0 GENERAL SAFETY</b>	
1.1 Safety Symbol Definitions .....	11
1.2 Do's and Do Not's:.....	12
1.3 Training:.....	14
1.4 Safety Decals .....	15
1.5 Serial Number Location.....	17

# Safety Section

## **⚠ WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.



# **⚠ DANGER**

## **DO NOT RIDE, SIT OR STAND ON UNIT.**

**RIDING ON UNIT  
COULD RESULT IN BODILY  
HARM OR FATAL INJURY  
USE EXTREME CAUTION WHEN  
UNIT IS IN USE, OR IN MOTION.**

If the decal above is missing or damaged call ODB immediately and we will send you a replacement free of charge. Never operate a unit with damaged or missing safety decals.

**⚠ DANGER**

**DO NOT RIDE, SIT OR STAND ON UNIT**

**⚠ DANGER**

**DO NOT MODIFY THE UNIT FOR RIDERS IN ANY WAY. SERIOUS INJURY OR DEATH MAY OCCUR**

ODB's leaf collectors are NEVER to be used to accommodate riders. If your unit has been modified to accommodate riders, remove these modifications immediately as this can result in serious injury or death.

# Safety Section





## **WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

## 1.1 Safety Symbol Definitions

This manual provides the owners/operator with procedures for safe operation, maintenance and repair of your leaf collector. As with any machine, there are hazards associated with their operation. For this reason safety is emphasized throughout this manual. To highlight specific safety information the following safety definitions are provided to assist the reader.

The purpose of safety symbols are to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL	MEANING
	<b>SAFETY ALERT SYMBOL:</b> Indicates danger, warning or caution. Attention is required in order to avoid serious personal injury. May be used in conjunction with other symbols or pictographs.
 <b>DANGER</b>	Disregarding this safety warning <b>WILL</b> result in serious equipment damage, injury or possible death.
 <b>WARNING</b>	Disregarding this safety warning <b>CAN</b> result in serious equipment damage, injury or possible death.
 <b>CAUTION</b>	Disregarding this safety warning <b>MAY</b> result in minor or moderate injury or property damage.

# Safety Section

## **WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

## 1.2 Do's and Do Not's:

This section contains some general safety precautions to do and not to do. This is not an all inclusive list and it is the responsibility of the operator to have proper training and use common sense in work situations.

## **WARNING**

### DO NOT:

1. **DO NOT** operate, maintain or repair this unit without having fully read and understood ALL the aspects of this manual.
2. **DO NOT** ride, sit or stand on unit at anytime.
3. **DO NOT** modify the leaf vacuum for any reasons to allow for riders.
4. **DO NOT** operate the unit in a state of disrepair.
5. **DO NOT** operate the unit with ANY guards or safety devices broken, missing, or inoperable.
6. **DO NOT** operate the unit without wearing proper safety equipment.
7. **DO NOT** operate this unit while under the influence of any alcohol or medication.
8. **DO NOT** operate this unit if you have a record of mental instability or dizziness which could result in injury to yourself or others.
9. **DO NOT** operate this unit if you are under 18 years of age.
10. **DO NOT** operate this unit without fully inspecting the unit for any damage or leakage.
11. **DO NOT** operate if the unit has any excessive vibration.
12. **DO NOT** operate unit with the inspection door limit switch damaged or missing.
13. **DO NOT** operate unit unless it is properly connected to a leaf collection box.
14. **DO NOT** operate unit unless it is properly attached to the tow vehicle.
15. **DO NOT** tow unit without using all the safety chains.
16. **DO NOT** tow unit with a damaged tongue.
17. **DO NOT** fill fuel tank with engine running. Allow engine to cool for 5 minutes before refueling.
18. **DO NOT** operate unit if fuel is spilled or with fuel cap off.
19. **DO NOT** smoke or weld near the unit.
20. **DO NOT** run engine in an enclosed area.
21. **DO NOT** place hands or feet near moving or rotating parts.
22. **DO NOT** operate engine with an accumulation of grass, leaves or other debris on the engine.

# Safety Section

## WARNING

### Do Not, continued;

23. **DO NOT** run engine with air cleaner removed.
24. **DO NOT** leave leaf machine unattended while in operation.
25. **DO NOT** park machine on steep grade or slope.
26. **DO NOT** vacuum a leaf pile without looking for foreign objects such as metal, glass, plastic or large pieces of wood.

## WARNING

### Do's:

1. **DO** completely read and understand the owner's manual before operating, maintaining or repairing the leaf collector.
2. **DO** follow engine and PTO manufacturer operating and maintenance instructions.
3. **DO** check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.
4. **DO** completely inspect the unit before leaving the service garage.
5. **DO** check the tow tongue each day for cracks.
6. **DO** inspect and be attentive to what is being vacuumed.
7. **DO** check the impeller, liners and blower housing for cracks or holes daily.
8. **DO** wear proper safety equipment as described in this manual.
9. **DO** watch for pedestrians, animals and other foreign material when vacuuming leaves.
10. **DO** replace any worn or missing safety stickers immediately.

# Safety Section

## 1.3 Training:

### **⚠ WARNING**

**Improper use of the ODB leaf collector CAN result in severe personal injury or death. All personnel using this leaf vacuum must be trained and qualified with all the operations, maintenance, repair and safety procedures defined in this manual.**

The warnings and procedures regarding safety in this manual are to be used as a guideline only. It is impossible to cover all the events that could happen in the vacuuming process. For this reason, it is vital that the owner accept the responsibility to implement a training program that will provide every operator or mechanic the basic skills and knowledge to make good judgement in all situations.

This training program must include the entire scope of hazards, precautions and government regulations encountered in the vacuuming process. The program should stress the need for regularly scheduled preventive maintenance and detailed equipment safety checks.

It is strongly recommended that all training programs be documented to ensure all operators and mechanics receive initial training on not just the operation but the safety features of the leaf collector.

# Safety Section

## 1.4 Safety Decals

**\*Read and Follow all Safety Sticker Warnings--Replace all damaged or missing stickers immediately.**



1,2,3,4,5,6,9,  
10,11,15

## Decals shown on next page

ITEM NO.	PART NUMBER	DESCRIPTION
*	TRUCKDK	Decal Kit - Trucks (includes 1 -15)
1.	200183	Danger--Rotating Parts
2.	200106	Caution- Pinch Point
3.	200192	Caution - Do Not Operate ... without reading manual
4.	200193	Caution - Allow Engine to Idle
5.	200194	Caution - Do not use Dielectric grease
6.	200178	Danger - Explosion hazard
7.	Call	SCL800 oval sticker
8.	200195	Clean Hopper screens
9.	200181	Warning - Head, Eye and Ear Protection
10.	200109	Do Not Over-Lubricate
11.	200179	Danger - Do Not Ride, Sit or Stand
12.	Call	ODB Big Sticker
13.	Call	ODB wide sticker
14.	200177	Warning - Flammable
15.	200182	Warning - Do not open cover while in operation
*Not in TruckDK Kit	16. *200190	Caution - Unload Body Prop
	17. *200187	Caution - Body must be braced
	18. *Call	Caution - Operation of body prop

# Safety Section

- 1  **⚠ WARNING**  
**ROTATING PARTS**  
1. BEFORE OPERATING READ OPERATORS MANUAL FOR OPERATING AND SAFETY INSTRUCTIONS.  
2. DO NOT OPERATE WITH ANY GUARDS OR COMPONENT PARTS REMOVED FROM UNIT.  
3. BEFORE MAKING AND ADJUSTMENTS OR REPAIRS STOP ENGINE AND REMOVE OVERKILL WIRE.  
4. WHILE IN OPERATION KEEP ALL PARTS OF BODY AWAY FROM INTAKE AND EXHAUST SECTIONS.  
5. WHEN OPERATING MACHINE KEEP PEOPLE AND PETS A SAFE DISTANCE AWAY.  
RFPC08-10
- 2  **⚠ ADVERTENCIA**  
**PIEZAS EN ROTACION**  
1. ANTES DE USAR LEA LAS INSTRUCCIONES DE OPERACION Y SEGURIDAD EN EL MANUAL DEL OPERADOR.  
2. NO OPERE SI CUALQUIER PROTECTOR O COMPONENTE FUE RETIRADO DE LA UNIDAD.  
3. ANTES DE HACER CUALQUIER AJUSTE O REPARACION, DETENGA EL MOTOR Y RETIRE EL CABLE DE LA SUJETA.  
4. MIENTRAS ESTE EN OPERACION MANTENGA ALEJADAS TODAS LAS PARTES DEL CUERPO DE LAS SECCIONES DE ADMISION Y ESCAPE.  
5. CUANDO LA MAQUINA ESTE EN FUNCIONAMIENTO, MANTENGA A LAS PERSONAS Y MASCOTAS A UNA DISTANCIA SEGURA.  
RFPC08-10
- 3  **⚠ CAUTION**  
**PINCH POINT**  
TO HELP AVOID INJURY FROM FRAME PIVOT AND STOPS  
Keep Hands, Feet And Clothing Away  
RFPC08-30
- 4  **⚠ PRECAUCION**  
**PUNTO DE ENGANCHE**  
PARA EVITAR HERIDAS DEL PIVOTE DEL BASTIDOR Y LAS PARADAS  
aleje las manos, los pies y las prendas de vestir  
RFPC08-30
- 3  **⚠ CAUTION**  
DO NOT ATTEMPT TO OPERATE OR REPAIR THIS UNIT WITHOUT FIRST READING AND UNDERSTANDING THE OPERATORS & SERVICE MANUAL  
RFPC08-20
- 4  **⚠ PRECAUCION**  
NO INTENTE OPERAR O REPARAR ESTA UNIDAD SIN PRIMERO LEER Y ENTENDER EL MANUAL DE SERVICIO Y DE OPERACION  
RFPC08-20
- 4  **⚠ CAUTION**  
ALLOW ENGINE TO IDLE BEFORE SHUTTING OFF  
RFPC08-18
- 4  **⚠ PRECAUCION**  
DESACELERE EL MOTOR ANTES DE APAGARLO  
RFPC08-18
- 5  **⚠ CAUTION**  
DO NOT USE DIELECTRIC GREASE ON ELECTRICAL SYSTEM. DOING SO WILL VOID WARRANTY.  
RFPC08-20
- 6  **⚠ DANGER**  
**EXPLOSION HAZARD**  
DO NOT CUT, BURN OR WELD WITHOUT FIRST REMOVING OR COMPLETELY PURGING THE FUEL TANK  
CONSULT OWNERS MANUAL  
RFPC08-20
- 6  **⚠ PELIGRO**  
**DE EXPLOSIÓN**  
NO CORTE, QUEME O SOLDE SIN ANTES ELIMINAR O PURGAR POR COMPLETO EL TANQUE DE COMBUSTIBLE  
CONSULTE EL MANUAL DE USUARIO  
RFPC08-20
- 7  **SCL 800 LEAF COLLECTOR**  
**ODB**  
MANUFACTURED PRODUCTS SINCE 1910  
www.leafcollector.com 800-446-9823
- 8  **CLEAN HOPPER SCREENS EVERY 8-10 HRS**
- 9  **⚠ WARNING**  
HEAD, EYE AND EAR PROTECTION REQUIRED WHILE OPERATING THIS EQUIPMENT  
RFPC08-18
- 9  **⚠ ADVERTENCIA**  
SE REQUIERE USAR PROTECCION PARA LA CABEZA, OJOS Y OIDOS MIENTRAS OPERA ESTE EQUIPO  
RFPC08-18
- 10  **DO NOT OVER-LUBRICATE**  
BEARING SHOULD BE LUBRICATED EVERY 10-15 HOURS OF OPERATION WITH .2 OZ. (ABOUT 2 STROKES OF AVERAGE GREASE GUN) OF APPROVED LUBRICANT. USE THE ENGINE HOUR METER AS A REFERENCE.  
SEE YOUR OWNER'S MANUAL  
RFPC08-20
- 11  **⚠ DANGER**  
DO NOT RIDE, SIT OR STAND ON UNIT.  
RIDING ON UNIT COULD RESULT IN BODILY HARM OR FATAL INJURY  
USE EXTREME CAUTION WHEN UNIT IS IN USE, OR IN MOTION.  
RFPC08-20
- 11  **⚠ PELIGRO**  
NO SE SUBA, SIENTE O PARE SOBRE LA UNIDAD.  
SUBIRSE A LA UNIDAD PUEDE RESULTAR EN LESIONES GRAVE O LETALES. TENGA EXTREMA PRECAUCION CUANDO ESTA UNIDAD ESTE EN USO O MOVIMIENTO.  
RFPC08-20
- 12  **THE ODB CO.**  
TRUCK SHEET 1 OF 13
- 13  **ODB LEAF COLLECTION SYSTEMS**  
Municipal Equipment since 1910 Call Toll Free, 1-800-446-9823  
**RICHMOND, VIRGINIA**
- 14  **⚠ WARNING**  
**FLAMMABLE**  
RFPC08-9
- 14  **⚠ ADVERTENCIA**  
**FLAMMABLE**  
RFPC08-9
- 17  **⚠ CAUTION**  
• BODY MUST BE BRACED BEFORE SERVICING HOIST OR WORKING IN AREA WITH BODY IN RAISED POSITION  
• LUBRICATE HOIST GREASE FITTINGS OFTEN - AT LEAST EACH TIME TRUCK IS SERVICED  
• TRUCK MUST BE LEVEL FOR DUMPING  
• DO NOT OVERLOAD  
OPERATOR'S MANUAL
- 15  **⚠ WARNING**  
**DO NOT OPEN COVER WHILE IN OPERATION**  
RFPC08-11
- 16  **⚠ ADVERTENCIA**  
**NO ABRA LA CUBIERTA MIENTRAS ESTA EN FUNCIONAMIENTO**  
RFPC08-11
- 18  **⚠ CAUTION**  
UNLOAD BODY BEFORE USING BODY PROP.  
RFPC08-11
- 18  **⚠ OPERATION OF BODY PROP**  
1. Raise body to full height and shut off all power.  
2. Raise prop to upright position.  
3. Lower body slowly until body bracket contacts prop.  
4. **DO NOT POWER HOIST DOWN.**



# Safety Section

## 1.5 Serial Number Location



### **⚠ WARNING**

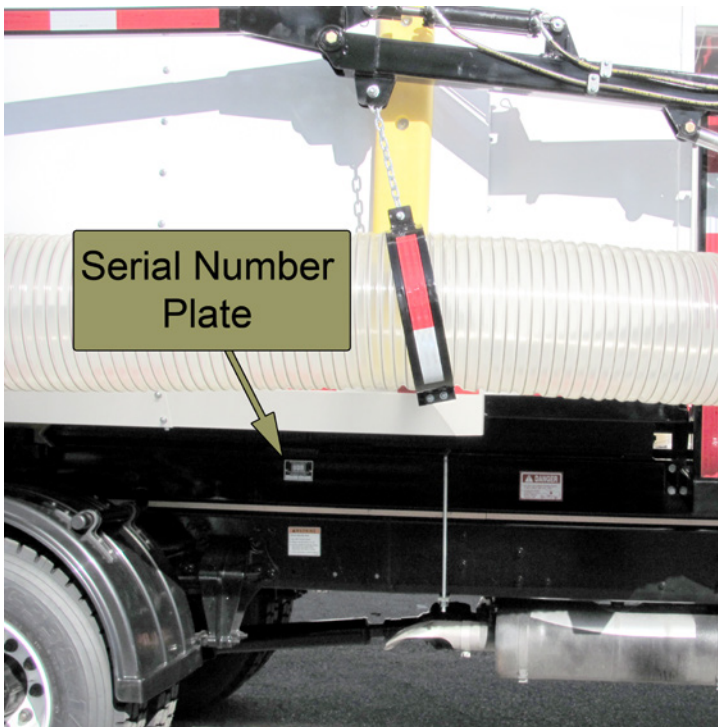
Thoroughly read and understand the safety and pre-operating sections of this manual before starting the engine.

### **⚠ WARNING**

Make sure each operator knows and understands the load ratings of the towed vehicle and that he/she is qualified to tow the vehicle.

The serial number tag is located on the chassis on boom side of the unit. It should be in front of the fenders going toward the front of the unit. (See figure 1.5a).

figure 1.5a



# 2.0 PRE-OPERATING SECTION

## **WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

## 2.0 PRE-OPERATING SECTION

## 2.0 Pre-Operating Section

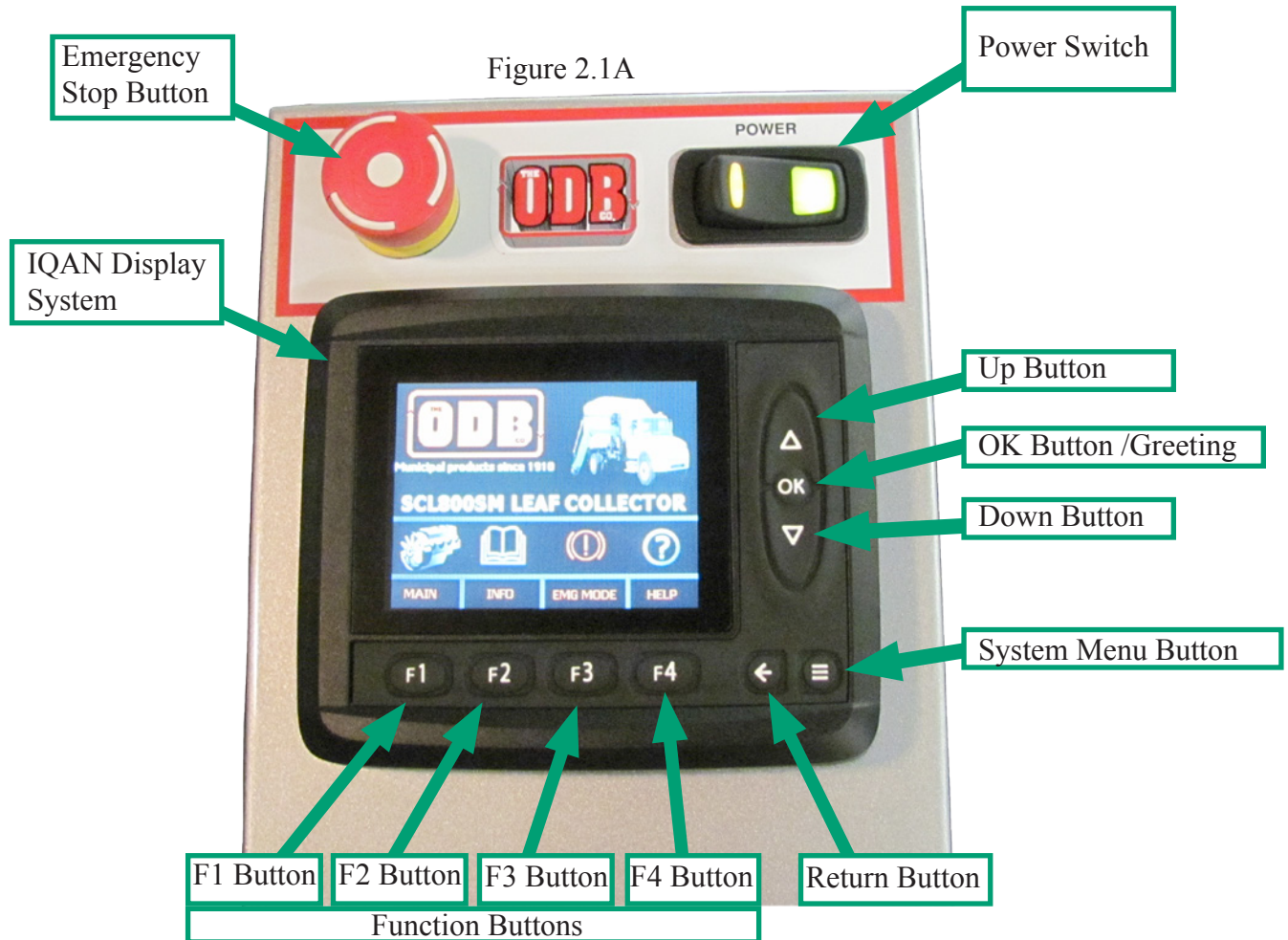
### 2.0 PRE-OPERATING SECTION

2.1 IQAN Display System and Controls - Overview.....	19
2.1 IQAN Display System and Controls - Overview.....	20
2.1 IQAN Display System and Controls - Overview.....	21
2.2 Joystick Controls: .....	22
2.2 Safe Operations:.....	23
2.3 Preparation For Operation.....	25
2.4 Pre-Transport Checks.....	26
2.5 Personal Protective Equipment and Clothing .....	27
2.6 Work Site Preparation .....	28

# Pre-Operating Section

## 2.1 IQAN Display System and Controls - Overview

Control Station:



\*\*This is a just a brief overview of the controls of the IQAN system, please see Section 3.1 for more detailed instructions on using the system.

### Emergency Stop Button:

This button shuts down the system immediately in case of an emergency situation.

### Power Switch:

This button turns the IQAN Display system on and off.

### IQAN Display System:

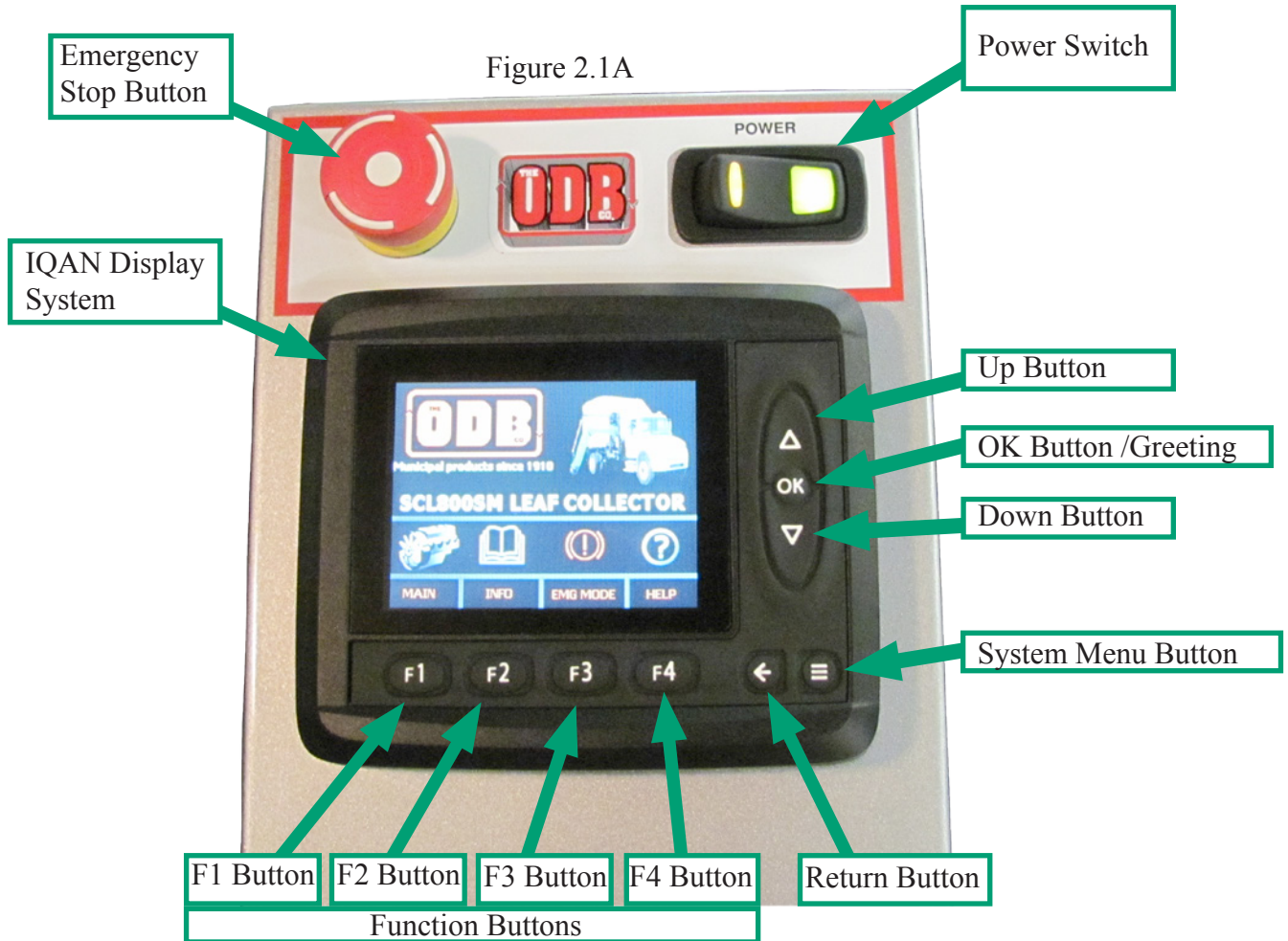
This is the heart of the SCL800SM-3X system. It controls and monitors the engine, PTO, dump and 3 Axis boom systems.

# Pre-Operating Section

## 2.1 IQAN Display System and Controls - Overview

Control Station:

Figure 2.1A



### Up Button:

This button is used to navigate through the various display pages, menus and lists. Also used to increase the throttle of the engine.

### OK Button Switch:

This button is used to confirm selections as well as go the main menu. **NOTE:** Pressing the OK button when take you to the Startup Greeting page (Shown above) on most screens.

### Down Button:

This button is used to navigate through the various display pages, menus and lists. Also used to decrease the throttle of the engine.

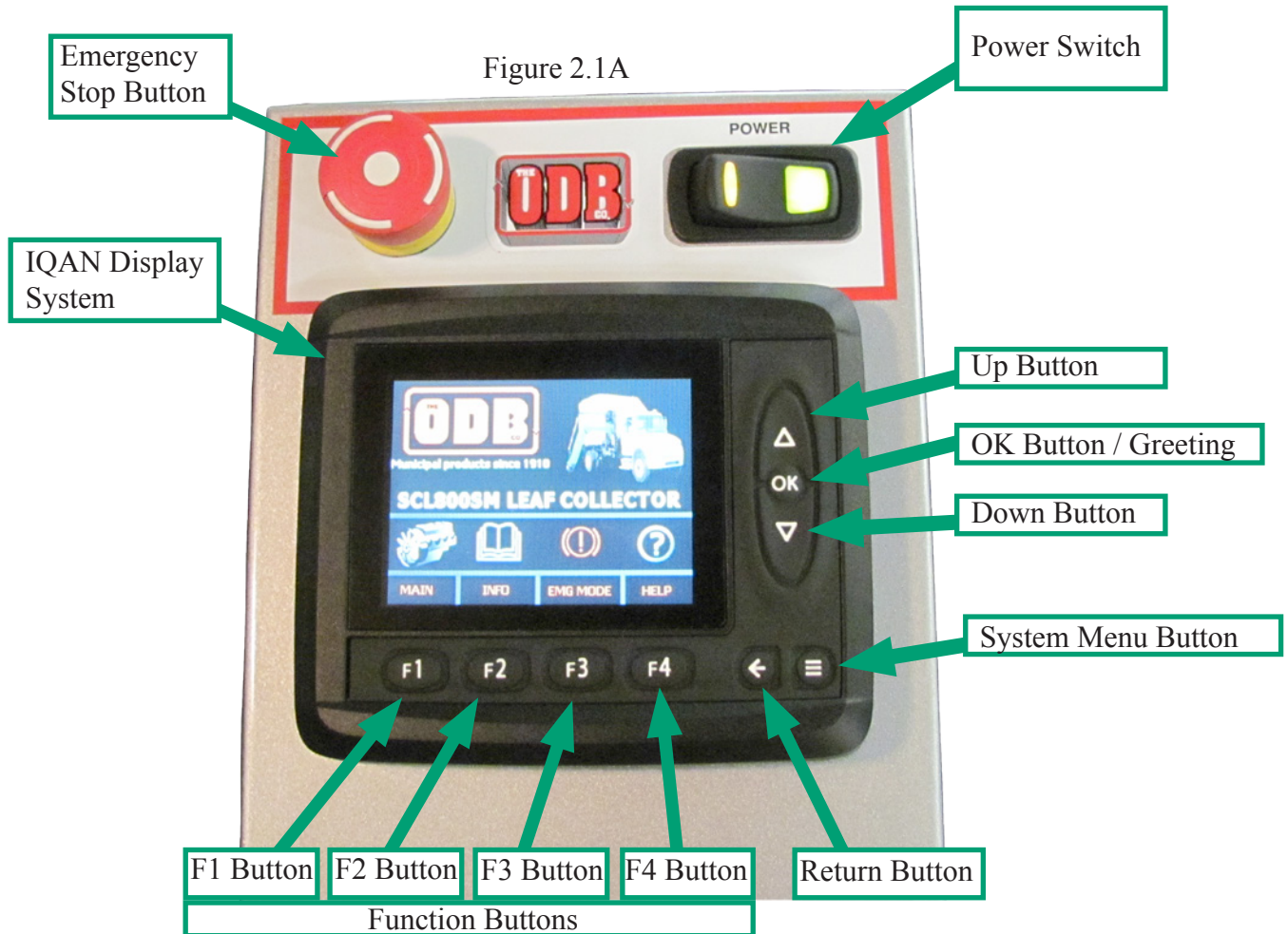
### Menu Button:

This button is used to access the System menu.

# Pre-Operating Section

## 2.1 IQAN Display System and Controls - Overview

Control Station:



### Return Button:

This button is return to the previous screen.

### Function Buttons:

These Four (4) buttons have different functionality depending on the screen. These are the main buttons that the user uses to select the screen or function they desire. The function key corresponds to the menu choice above the function key.

# Pre-Operating Section

## 2.2 Joystick Controls:

### Joystick Controls:

The joystick is used to control the boom actions, engine throttle, rear door lock and body dump. The joystick works in two different modes, Boom mode and Dump mode.

### NOTE:

In order for the boom to move, the "Deadman" must be pressed first, but it doesn't need to be continuously held (except when dumping box in dump mode).

### **Boom Mode: (Figure 2.2a)**

Pushing the joystick ...

Forward - boom moves In towards the truck

Backward - boom moves Out away from the truck

Left - Boom moves Forward to the front of truck

Right - Boom moves Backward to rear of unit.

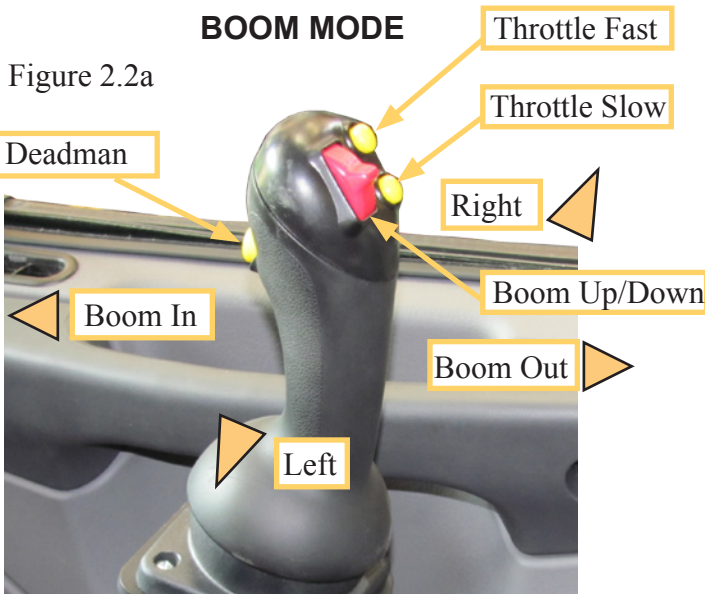
Top Yellow Button - throttle fast

Bottom Yellow Button - throttle slow

Red Slide Up - Boom Up

Red Slide Down - Boom Down

Figure 2.2a



### **⚠ WARNING**

Never tamper with the Deadman switch such as taping it down, serious equipment damage or bodily harm could occur.

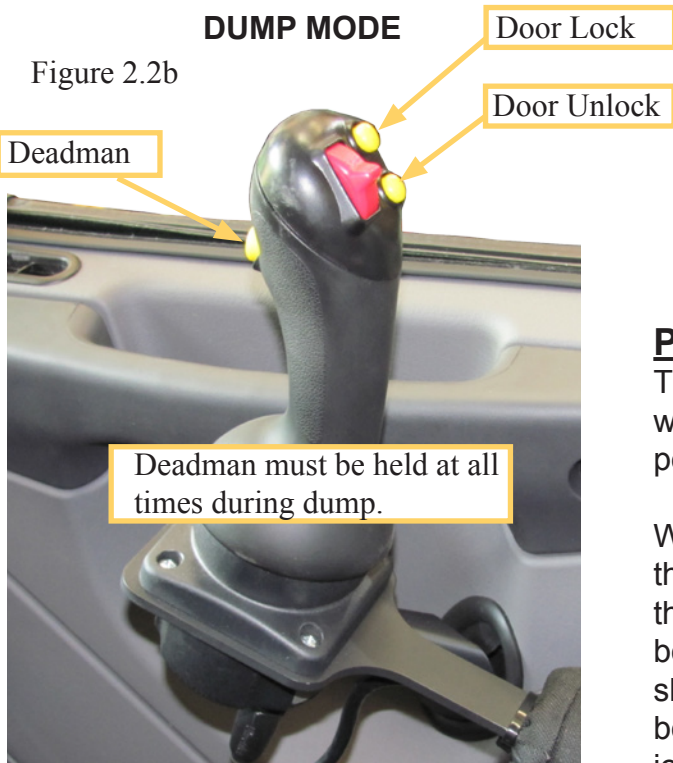
### **Dump Mode: (Figure 2.2b)**

**Note: Deadman button must be pressed!**

Top Yellow Button - Rear Door Lock

Bottom Yellow Button - Rear Door Unlock

Figure 2.2b



### **PROPORTIONAL CONTROLS**

The 3 Axis boom on the ODB leaf collector is proportional which allows the operator the greatest control of the boom possible.

What does that mean? It means that the harder you move the joystick in a direction the faster the boom moves and the softer you move the joystick in a direction the slower the boom moves. For instance, if you need to move the joystick slowly forward you slightly move the joystick forward and the boom will slowly move forward. The harder you press the joystick forward the faster the boom will go.

# Pre-Operating Section

## 2.2 Safe Operations:

### **WARNING**

**ALL personnel using, maintaining or servicing this unit must be trained in all safety procedures outlined in this manual. Improper or careless use of this equipment CAN result in personal injury or death.**

#### **Operations shall be restricted to:**

1. Properly trained, qualified and experienced operators and/or qualified and experienced maintenance and test personnel.
2. Trainees under the direct supervision of qualified and experience personnel.
3. Qualified and experienced maintenance and service personnel.

#### **Operators who qualify to operate this equipment under the above restrictions shall also comply with the following physical requirements:**

1. Have good vision and the ability to read and understand this manual as well as all safety and operational decals on the equipment.
2. Be capable of hearing, with or without a hearing aid, at a level needed to safely operate this equipment.
3. A record of mental stability with no history of epileptic seizures, dizziness, or any other disability that may result in injury to himself or others.

If any of these requirements are not satisfied at any time, the person failing to meet these requirements **MUST NOT OPERATE THIS EQUIPMENT.**

# Pre-Operating Section

## 2.2 Safe Operations (continued):

### Additional Requirements:

1. Each operator must demonstrate competence to understand all safety decals, operator's manuals, safety codes, applicable government regulations, and all other information applicable to the safe and proper operation of the leaf vacuum.
2. Each operator must demonstrate the ability to recognize an emergency situation that may arise during vacuuming operations and the knowledge and procedures to implement corrective action.
3. Each operator must demonstrate or provide evidence of qualification and experience prior to operating the leaf vacuum.
4. Each operator must be able to recognize existing or potential problems regarding the mechanical integrity of the leaf vacuum and report any maintenance requirements to the supervisor in charge.
5. Each operator must wear the proper personal clothing and safety gear. (Refer to SAFETY PRECAUTIONS Section 5.4)
6. Operators must not be physically or mentally fatigued.
7. Operators must not be under the direct or indirect influence of alcohol and/or drugs. This includes prescription drugs that could cause drowsiness, dizziness, or any other condition that would impair their ability to operate or use this equipment in a safe manner.



# Pre-Operating Section

## 2.3 Preparation For Operation

### CAUTION

Before your leaf vacuum is put into operation it is very important to read and follow the procedures outlined in the engine owner's manual. (EOM).

For specific information regarding the following checks please refer to the "Maintenance" section of this manual and the engine owner's manual.

### WARNING

**DISENGAGE** the clutch and remove the negative battery cable before performing the following checks.

### WARNING

**NEVER** place any part of the body under or behind guards or any other area in which you cannot see.

#### IMPORTANT CHECKS:

**NOTE:** The following checks contained in the next three sections should be performed prior to leaving the storage area.

1. Check engine fuel, coolant and oil levels. (see EOM)
2. Check engine air filter
3. Check all bolts and nuts to ensure they are tight.
4. Check all controls for free and proper operation.
5. Check main drive belt (if equipped) for proper adjustment.
6. Inspect the fan blades to ensure that they are not bent, deformed, fatigued or cracked. Replace fan if any damage is present.
7. Inspect the intake hose flange to make sure it is connected correctly to the blower housing.
8. Inspect the leaf vacuum frame and structure for any bent, broken, cracked, missing or loose parts.
9. Check all guards to ensure they are undamaged, in place and properly secured.
10. All decals must be in place and legible prior to operating the leaf vacuum. See the decal section for decal replacement.

# Pre-Operating Section

## 2.4 Pre-Transport Checks

### **⚠ WARNING**

Failure to verify the road worthiness of the leaf vacuum and the truck and verify all equipment is properly stowed, may cause serious injury or death to yourself or others.

Do not tow the leaf vacuum unless all important checks listed below are completed.

### IMPORTANT CHECKS:

1. The hose boom is properly secured. Be sure nozzle is in the cradle securely.
2. The unit's lighting is operating properly.
3. Check the general condition of the tires, tire pressure and ensure that all lug nuts are securely fastened.
4. Visual examination of the leaf vacuum frame, suspension and structure to determine if all components are correctly positioned and secured for travel.
5. Check the intake hose boom to verify that it is securely fastened to the leaf vacuum and can not swing free.
6. Verify there are no loose tools or materials on the unit, inside the intake and exhaust hoses, or inside the engine sheet metal.
7. Check all cones, wheel-chocks, signs or other support tools and materials to ensure proper stowage.
8. Verify the driver of the unit is qualified to tow the type and weight of the unit.

# Pre-Operating Section

## 2.5 Personal Protective Equipment and Clothing

### **WARNING**

**Always** wear proper safety equipment as outlined below, not wearing such equipment **CAN** result in serious personal injury or possible death.

### IMPORTANT CHECKS:

Anyone operating the leaf vacuum equipment **MUST** wear appropriate protective equipment and clothing to protect them from injury during operations.

### **PROTECTIVE EQUIPMENT:**

1. **Head Protection:** Hard hats without under-chin strapping.
2. **Eye Protection:** Wraparound goggle type eye protection held in place with an elastic band around the head or a hard hat mounted face shield, which provides full protection of the face.
3. Eye protection must meet ANSI Z87.1 standards.
4. **Hearing Protection:** plug type or “muff type” ear protection should be worn at all times while operating the unit.
5. **Breathing Protection:** Paper filter type dust masks should be worn to protect from dirt and dust particles during the vacuuming process.
6. **Reflective Vests:** Highly visible vests should be worn so motorists can see the operator in all weather and lighting conditions.
7. **Work Gloves:** Gloves should be worn to protect the hands and wrists from debris.
8. **Steel Toed Boots:** should be worn to protect the feet.

### **DANGER**

Work clothes **MUST** be close fitting, but not restrictive of movement, without any loose parts that could be entangled in any parts of the leaf vacuum. This includes items such as jewelry, chains and backpacks.

# Pre-Operating Section

## 2.6 Work Site Preparation

### **WARNING**

**Never** place any part of the body under or behind guards or any other visually obscured area.

**Making sure the leaves are clear of possible dangerous material is critical to safe vacuuming. Vacuuming up metal, glass, rocks or other dangerous material CAN cause serious damage to the equipment or personal injury.**

**The following guidelines must be followed to insure safety.**

1. An inspection of the leaves to be vacuumed must be done prior to the vacuuming process. We realize that it is impossible to completely inspect every inch of leaves being vacuumed, but it is imperative that all leaves be inspected for obvious dangerous material before vacuuming.
2. The operator should never be in the line of traffic, the operator should work on the shoulder whenever possible.
3. The operators should place cones or other barriers to provide adequate warnings to vehicles and pedestrians that vacuuming is in progress.
4. Strobe lights on the leaf vacuum and on the tow vehicle should be on at all times for high visibility.
5. Confirm that all operators are wearing proper clothes and personal protective equipment.
6. Restrict all personnel, except the operator from the area near the leaf vacuum. **DO NOT** allow pedestrians, children or animals near the work area.
7. Make sure that the exhaust hose (if equipped) fits properly into the box container so that all debris is blown into the box container.

# 3.0 OPERATING SECTION

## **⚠ WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

## 3.0 OPERATING SECTION

### 3.0 OPERATING SECTION

3.1 Starting Engine.....	30
3.1 Starting Engine, continued;.....	31
3.2 Engaging the Standard PTO.....	32
3.3 Fluid Drive Coupler (if equipped) .....	33
3.4 Hose Boom Operation - 3 Axis.....	34
3.4 Hose Boom Operation - 3 Axis, cont.....	35
3.4 Hose Boom Operation - 3 Axis, cont.....	36
3.4 Hose Boom Operation - 3 Axis, cont.....	37
3.5 Dumping the Body.....	38
3.5 Dumping the Body, continued .....	39
3.5 Dumping the Body, continued .....	40
3.6 Unloading the Unit Completely.....	41

# Operating Section

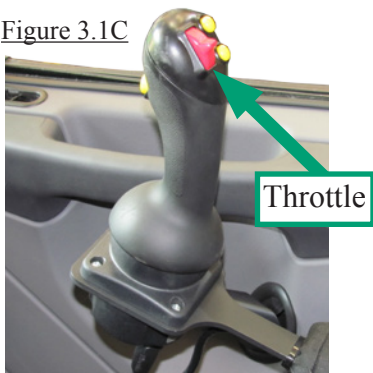
Figure 3.1A



Figure 3.1B



Figure 3.1C



## 3.1 Starting Engine

### CAUTION

Check your surroundings before starting unit and make sure people and objects are clear of unit.

### WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before starting the engine.

### CAUTION

**DO NOT** start the engine in an enclosed building. Proper ventilation is required before starting the engine.

Review the Engine Operating Manual supplied with your leaf vacuum for specific start-up, maintenance and operating instructions. It is especially important to review break-in service procedures for brand new units.

### Starting Procedure (refer to figure 3.1A):

1. Perform all the pre-starting, pre-operating checks outlined in the EOM and in this manual.
2. Turn on power to the IQAN station by pressing the power switch to the right.(Fig. 3.11A)
3. Depress F1 key to access the "Main" Menu
4. Then Depress the F1 key to start the engine. (Fig. 3.1B)
5. The engine throttle is controlled using either the arrow buttons on the IQAN or the Yellow Buttons on the Joystick. (Figure 3.1C)

# Operating Section

Figure 3.1A



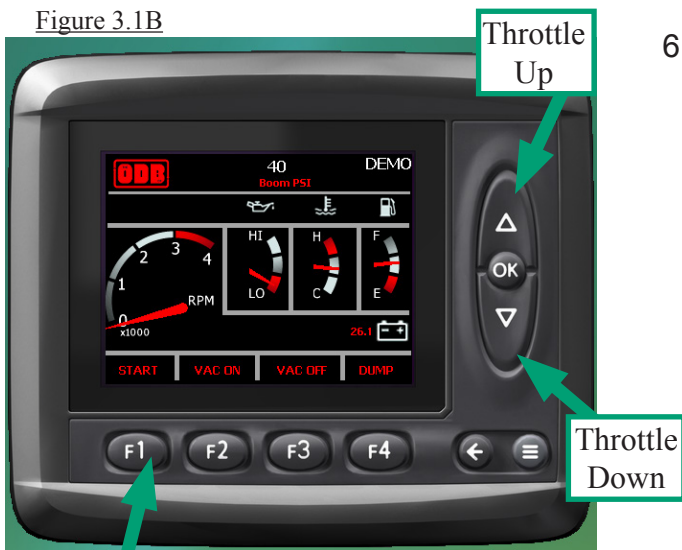
## 3.1 Starting Engine, continued;

**IMPORTANT:** Do not operate the starter for more than 30 seconds at a time. To do so may overheat the starter. If the engine does not start the first time, wait at least 2 minutes before trying again. If the engine fails to start after 4 attempts, see the trouble shooting section of the EOM and this manual.

5. Check all gauges for normal engine operation. If operation is not normal, stop the engine and determine the cause.

**IMPORTANT:** To assure proper lubrication, operate the engine at or below 1600 rpm with no load for 1 -2 minutes. Extend this period 2 - 4 minutes when operating at temperatures below freezing.

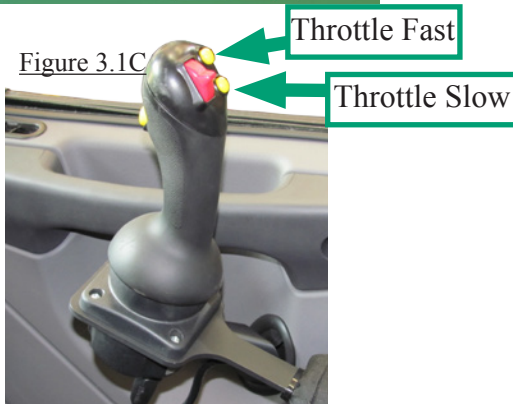
Figure 3.1B



6. Watch the coolant temperature gauge. Do not place engine under load until it is properly warmed up. The normal engine coolant temperature range is 180 - 202 degrees F.

Start (F1)

Figure 3.1C



# Operating Section

Figure 3.2A



## 3.2 Engaging the Standard PTO

### ⚠ WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before starting the engine.

### ⚠ WARNING

Make sure the intake hose is properly attached and make sure the front of the hose is clear of any objects which could be inadvertently vacuumed during the PTO engagement process.

Review the Engine Operating Manual supplied with your leaf vacuum for specific start-up, maintenance and operating instructions. It is especially important to review break-in service procedures for brand new units.

### Engaging the PTO (refer to Figure 3.2A):

1. Perform all the pre-starting, pre-operating checks outlined in the EOM and in this manual.
2. Start the engine as previously discussed in this manual and in the EOM.
3. Once the engine has been allowed to thoroughly warm up (engine temperature gauge should read at least 180 degrees) increase the throttle control until the engine reaches 1800 rpm.
4. Press F2 button "VAC ON" Fig. 3.2A) to engage the clutch. Use the F3 button "VAC OFF" to disengage the clutch.

Figure 3.2B



### ⚠ CAUTION

**IMPORTANT:** If the unit experiences any heavy vibrations or makes any unusual noises, shut the engine down and after following the necessary safety guidelines, have a qualified technician investigate the cause. DO NOT operate a unit that is in a state of disrepair.



# Operating Section

Figure 3.2A

## 3.3 Fluid Drive Coupler (if equipped)

### **⚠ WARNING**

Thoroughly read and understand the safety and pre-operating sections of this manual before starting the engine.



### **⚠ WARNING**

Make sure the intake hose is properly attached and make sure the front of the hose is clear of any objects which could be inadvertently vacuumed at any time.

There is no PTO engagement when the unit is equipped with a Fluid Drive Coupler. The impeller is ALWAYS engaged and rotating.

### **⚠ WARNING**

The suction impeller is ALWAYS rotating when the engine is running and for a few minutes after the engine is shut off. Exercise caution whenever the unit is running.

### **⚠ CAUTION**

**IMPORTANT:** If the unit experiences any heavy vibrations or makes any unusual noises, shut the engine down and after following the necessary safety guidelines, have a qualified technician investigate the cause. DO NOT operate a unit that is in a state of disrepair.

# Operating Section

## 3.4 Hose Boom Operation - 3 Axis

### **⚠ WARNING**

Thoroughly read and understand the safety, pre-operating and operating sections of this manual before vacuuming. Wear the proper safety equipment as outlined in this manual.

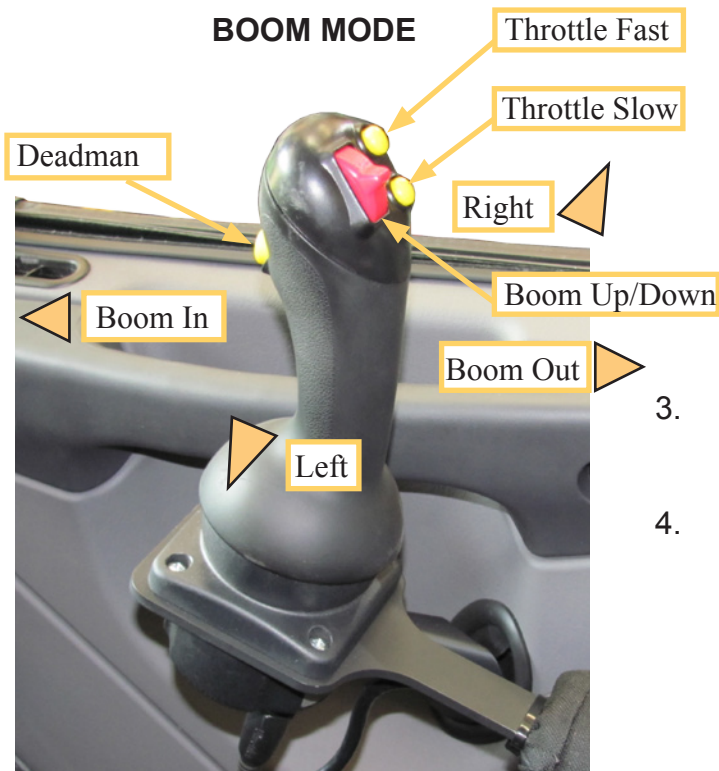
### **⚠ WARNING**

Visually inspect the area around the hose boom for any objects, trees, telephone poles, persons or animals which could possibly be in the path of the moving hose boom.

### **⚠ WARNING**

Visually inspect the leaves before vacuuming any for any material that could be harmful to the leaf vacuum of people. This includes bottles, wood, steel, glass, stone or other hard or breakable objects.

Figure 3.3A



### Boom Operation:

1. Start the engine using the procedures stated earlier in this manual.

Set the engine throttle to around 1,600-1,800.

**NOTE:** Always vacuum leaves using the lowest rpm as possible. This saves fuel and decreases the amount of dust escaping the box container. It also decreases the chance of picking up undesirable material.

3. Check again for any objects in the path of the moving hose boom
4. Grasping the joystick, press the "Deadman" button (Fig. 3.3A) and then slide the red Slide button up to raise the boom (Fig. 3.3A) to raise the hose out of the cradle.

**NOTE:** The "Deadman" (Fig. 3.3A) must be depressed first for any of the boom functions to work.

# Operating Section

## 3.4 Hose Boom Operation - 3 Axis, cont.

### **⚠ WARNING**

Visually inspect the area around the hose boom for any objects, trees, telephone poles, persons or animals which could possibly be in the path of the moving hose boom.

### **⚠ WARNING**

Visually inspect the leaves before vacuuming any for any material that could be harmful to the leaf vacuum or people. This includes bottles, wood, steel, glass, stone or other hard or breakable objects.

### **⚠ WARNING**

Never tamper with the Deadman switch such as taping it down, serious equipment damage or bodily harm could occur.

### Boom Operation, continued:

#### Joystick Controls: (Figure 3.3A)

Pushing the joystick ...

Forward - boom moves In towards the truck  
Backward - boom moves Out away from the truck

Left - Boom moves Forward to the front of truck

Right - Boom moves Backward to rear of unit.

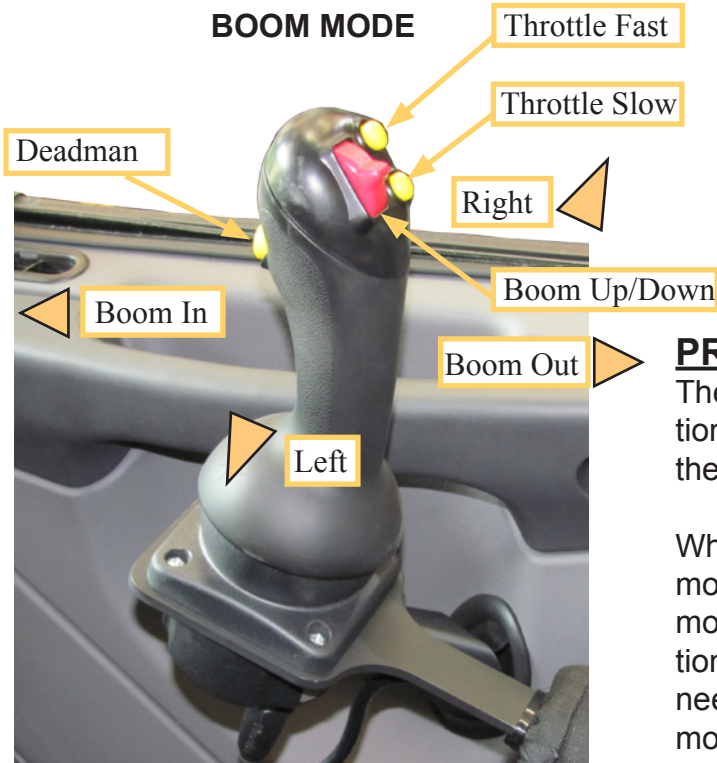
Top Yellow Button - throttle fast

Bottom Yellow Button - throttle slow

Red Slide Up - Boom Up

Red Slide Down - Boom Down

Figure 3.3A



#### PROPORTIONAL CONTROLS

The 3 Axis boom on the ODB leaf collector is proportional which allows the operator the greatest control of the boom possible.

What does that mean? It means that the harder you move the joystick in a direction the faster the boom moves and the softer you move the joystick in a direction the slower the boom moves. For instance, if you need to move the joystick slowly forward you slightly move the joystick forward and the boom will slowly move forward. The harder you press the joystick forward the faster the boom will go.

# Operating Section

## 3.4 Hose Boom Operation - 3 Axis, cont.

### **⚠ WARNING**

Visually inspect the area around the hose boom for any objects, trees, telephone poles, persons or animals which could possibly be in the path of the moving hose boom.

### **⚠ WARNING**

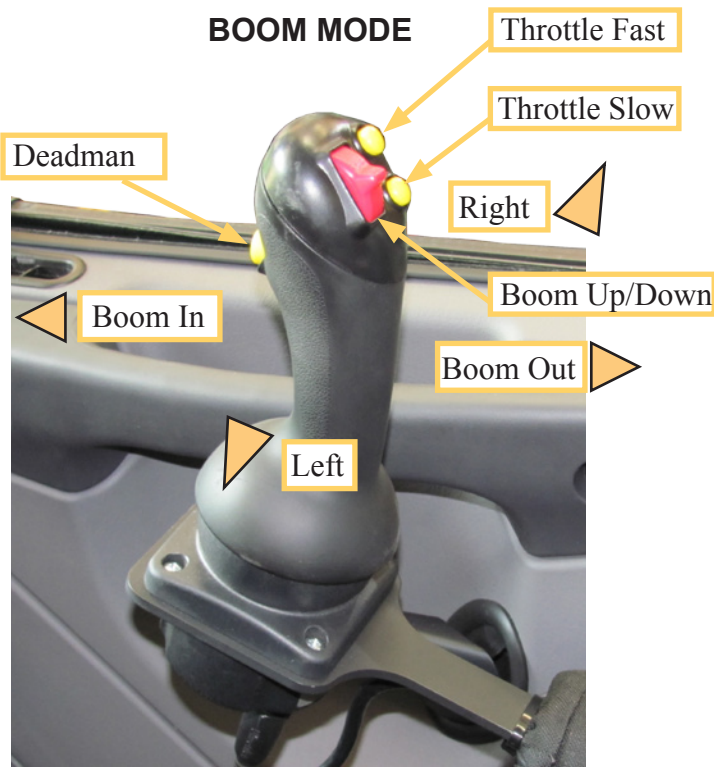
Visually inspect the leaves before vacuuming any for any material that could be harmful to the leaf vacuum or people. This includes bottles, wood, steel, glass, stone or other hard or breakable objects.

### **⚠ WARNING**

Never tamper with the Deadman switch such as taping it down, serious equipment damage or bodily harm could occur.

### Boom Operation, continued:

Figure 3.3A



- Carefully and slowly maneuver the hose to the leaf pile.
- Engage the clutch fully using the steps outlined earlier in this manual.
- Always keeping the hose nozzle at a 45 degree angle. This allows proper air flow and will reduce clogging. DO NOT bury the nozzle into the leaf pile, this will cut off the air flow and will make vacuuming much more difficult and will increase the chance of clogging.
- If leaves are not vacuuming, increase the engine rpm to 2,000 - 2,200 and try vacuuming again.  
**NOTE:** Wet leaves will need higher rpm's to vacuum whereas dry leaves will only need minimal rpm's.
- Continue moving the nozzle slowly and carefully in a sweeping motion above the leaves while vacuuming.

# Operating Section

## 3.4 Hose Boom Operation - 3 Axis, cont.

### **⚠ WARNING**

Visually inspect the area around the hose boom for any objects, trees, telephone poles, persons or animals which could possibly be in the path of the moving hose boom.

### **⚠ WARNING**

Visually inspect the leaves before vacuuming any for any material that could be harmful to the leaf vacuum or people. This includes bottles, wood, steel, glass, stone or other hard or breakable objects.

Figure 3.3B



### Boom Speed Control:

10. If you want to adjust the speed of the boom in any or all directions you can access the boom speed control by pressing the Escape key. (Fig. 3.3B)
11. Press the direction that you wish speed up or slow down.
12. This will take you to another screen with a dial. Use the navigation buttons to increase or decrease the speed. Press OK at the desired setting. (Fig. 3.3D)

Figure 3.3C



Figure 3.3D



# Operating Section

## 3.5 Dumping the Body

### **⚠ DANGER**

Make sure all people and animals are completely clear of the unit during the dumping process.

### **⚠ WARNING**

Thoroughly read and understand the safety and pre-operating sections of this manual before starting the engine.

### **⚠ DANGER**

Consult the user's manual for your hooklift for complete dumping safety precautions before dumping.

### **⚠ WARNING**

Make sure the dump area has been thoroughly inspected before starting the dumping process. Look out for inclines and soft ground.

### **⚠ WARNING**

Watch for any overhead obstacles such as power lines and tree limbs before dumping.

Figure 3.5A



Review the Engine Operating Manual supplied with your leaf vacuum for specific start-up, maintenance and operating instructions. It is especially important to review break-in service procedures for brand new units.

### **Dumping the body (refer to figures 3.5a and 3.5b):**

1. Perform all the pre-starting, pre-operating checks outlined in the EOM and in this manual.
2. Start the engine as previously discussed in this manual and in the EOM. Make sure the PTO is disengaged.
3. Do a thorough inspection of the entire area around and above the unit, looking for any object that could get in the way of the body dumping.
4. Make sure the surface is level and the ground is solid before dumping.
5. Increase the throttle to 1,600 -1,800 rpm. **Do not** race the engine.

Figure 3.5B



# Operating Section

## 3.5 Dumping the Body, continued

Figure 3.5A



6. Press the F4 "Dump" button from the IQAN display (Fig. 3.5A) to enter "Dump" mode.
7. In order for the dump body to dump the rear door locks must be released. Press either the F3 "Unlock" button from the IQAN screen (Fig. 3.5B) or use the bottom yellow button on the Joystick. (Fig. 3.5C)
8. Once the door latches are open and the indicator light on the screen shows OPEN, return to the main screen and shut the unit OFF.

**NOTE:** the Engine must be shut OFF before dumping. Failure to do so could result in engine failure.

Figure 3.5B



9. See the operator's manual of the hook lift supplier for dumping / lowering procedures.

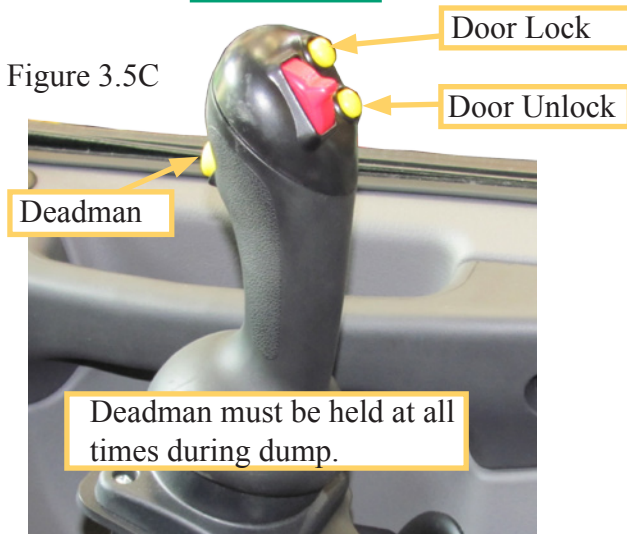
**CAUTION**

**IMPORTANT:** the Engine must be shut OFF before dumping. Failure to do so could result in engine failure.

**DANGER**

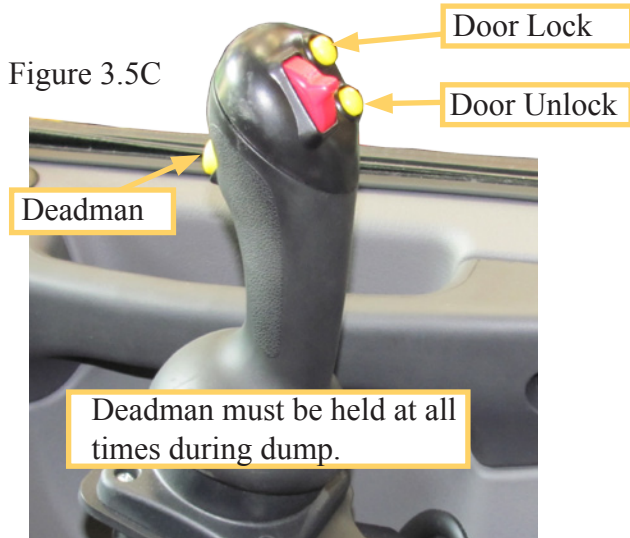
Consult the user's manual for your hook lift supplier for complete dumping safety precautions and operating procedures before dumping.

Figure 3.5C



# Operating Section

## 3.5 Dumping the Body, continued



### Lowering the body:

1. Before lowering the body, walk completely around the unit and thoroughly inspect the area between the body and the unit's frame. Look for any object, person or animal that could potentially get between the dump body and the frame. **DO NOT** go under the body while inspecting.
2. Once the area has been inspected, start the engine as described in section 3.1. **DO NOT** race the engine.
3. See the operator's manual of the hook lift supplier for dumping / lowering procedures.
4. Once the unit is lowered completely, start the engine from the main screen, press the dump button to lock the latches on the rear door. (Figure 3.5D).
5. Return to the main screen.
6. Proceed with leaf collection.

Figure 3.5D



**⚠ DANGER**

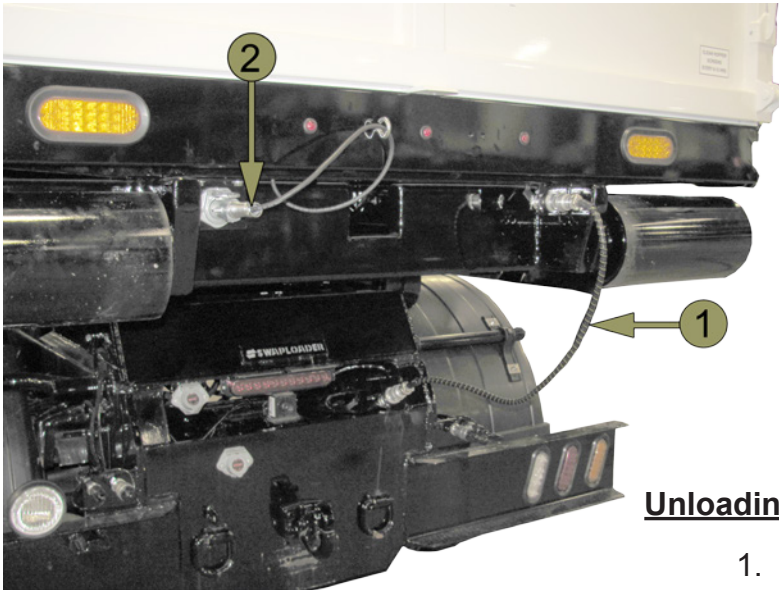
Consult the user's manual for your hook lift supplier for complete dumping safety precautions and operating procedures before dumping.



# Operating Section

## 3.6 Unloading the Unit Completely

Figure 3.6A



### **⚠ DANGER**

Consult the user's manual for your hook lift supplier for complete dumping safety precautions and operating procedures before dumping.

### **⚠ CAUTION**

**IMPORTANT:** the Engine must be shut OFF before unloading. Failure to do so could result in engine failure.

#### Unloading the Unit:

1. Before unloading the unit be sure to completely shut off the leaf collector engine.
2. Be sure to thoroughly inspect the area where you are going to unload the unit making sure to unload on a clear, level ground.
3. Go to the rear of the unit and unhook the two (2) wiring harnesses as shown in figure 3.6A. Be sure to place the clearance lights plug in its holder. Remove the communication jumper harness and store inside the truck or a dry clean place. Failure to remove / secure these harnesses properly will result in damage to the harnesses when off-loading.
4. Read, understand and follow the instructions and safety precautions outlined in the hook lift owners and safety manual and follow those procedures for using the hook lift mechanism.

### **⚠ CAUTION**

Failure to remove / secure these harnesses properly will result in damage to the harnesses when off-loading.

### **⚠ WARNING**

Make sure the dump area has been thoroughly inspected before starting the dumping process. Look out for inclines and soft ground.

### **⚠ WARNING**

Watch for any overhead obstacles such as power lines and tree limbs before unloading.

# 4.0 MAINTENANCE SECTION

## **⚠ WARNING**

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

## 4.0 MAINTENANCE SECTION

### 4.0 MAINTENANCE SECTION

4.1 Maintenance Overview: .....	43
4.2 Maintenance and Lubrication .....	44
4.3 Lubrication: .....	45
4.3 Lubrication, continued; .....	46
4.3 Lubrication, continued; .....	47
4.4 Preventative Maintenance .....	48
4.5 Torque Values .....	53
4.6 Quick Reference Chart .....	54
4.7 Kraft Fluid Drive Maintenance (Optional) .....	55

# Maintenance Section

## 4.1 Maintenance Overview:

### CAUTION

Only properly trained personnel should perform maintenance or repair on this equipment. Consult ODB before performing any maintenance procedures that is not specifically covered in this manual. Improper maintenance or repair may void any and all warranties on this equipment.

### WARNING

Improper maintenance or repair CAN result in equipment damage and/or personal injuries.

### DANGER

**BEFORE CONTINUING**, please read and understand the Safety, Pre-operating and Operating sections of this manual before doing any procedures in this section.

A properly maintained leaf vacuum will dramatically extend the life of the unit and will create a safer work place as well. For the general safety and welfare of all personnel it is important to create a scheduled maintenance program that covers all the elements in this manual as well as the engine, PTO and axle owner's manuals provided with this unit.

Use the chart on the following page as a guide for your scheduled maintenance program. If there are any questions concerning any of these procedures please call ODB.

# Maintenance Section

## 4.2 Maintenance and Lubrication

This chart is only a reference, always **consult the Owners Manual of the Engine, PTO, etc for actual recommendations (Use Hour Meter as a Guide)**

MAINTENANCE	INTERVAL					
	Daily	First 8 Hours	Every 25 Hours	Every 50 Hours	Every 100 Hours	Every 200 Hours
Check and add engine oil, coolant, fuel and Hydraulic fluid (hoist and boom)*	●					
Check for loose nuts or bolts	●					
Check for fuel, oil, coolant and hydraulic leakage*	●					
Check or clean radiator screen	●					
Lubricate impeller shaft flange bearings(if equipped)	●					
Check lug nuts and tire pressure / condition	●					
Check trailer safety chains and hitch	●					
Check tow bar for damage or wear	●					
Check and clean instrument panel and circ. board	●					
Clean pre-cleaner	●					
Check air filter for dirt or debris*	●					
Check trailer lighting and trailer brake operation	●					
Change engine oil* (for <b>break in</b> oil see EOM)		●			●	
Clean and check battery and connections*			●			
Check power band tension (if equipped)			●			
Check power band condition (if equipped)			●			
Check impeller for damage, cracks or wear			●			
Grease (non-conductive) circuit board connectors			●			
Clean hydraulic pump motor/connections			●			
Lubricate throttle and choke cables				●		
Check blower housing liners for cracks or wear				●		
Check Clutch/PTO linkage adjustment				●		
Change hoist hydraulic fluid and filter		●			●	
Change boom hydraulic fluid					●	
Inspect intake and exhaust hoses for damage					●	
Check exhaust duct gasket for wear	●					
Replace oil filter*					●	
Replace air filter primary element*					●	
Inspect radiator and hoses*					●	
Check fan belt conditions and tension*					●	
Inspect all duct work for cracks, holes or wear	●					
Grease / Inspect wheel bearings for corrosion					●	
Change engine coolant*						●
Check fuel tank for leaks						●
Lubricate Hoist and Hinge Fittings						●

\* = see the engine owner's manual for complete details

# Maintenance Section

## 4.3 Lubrication:

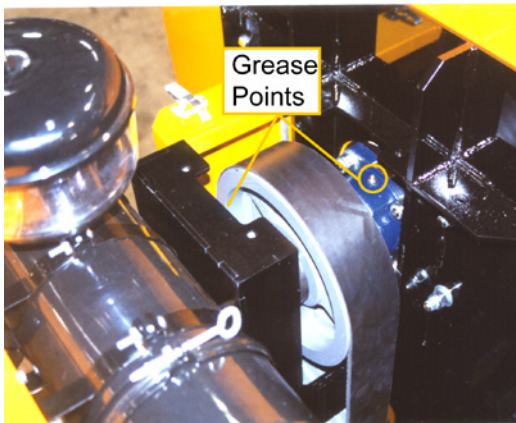
### ⚠ CAUTION

Remove the negative battery terminal before attempting any lubrication procedures.

### ⚠ WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before performing any lubrication procedures.

Figure 4.3A



**NOTE:** DO NOT mix different types of grease. The old grease MUST BE purged before a different type of grease is used. Mixing grease WILL cause premature failure to the bearings.

The following are general lubrication procedures for our standard units. Any special or custom built units may have other lubrication procedures not directly mentioned in this manual. Please consult ODB before any lubricating procedures not specifically mentioned in this manual.

Proper lubrication of your unit correlates directly to how long your unit will last. A properly maintained unit will last much longer than a unit that is not maintained properly.

**NOTE:** Always lubricate bearings at the end of each work day. This will displace any moisture in the bearings. Also lubricate thoroughly before extended shutdown or storage.

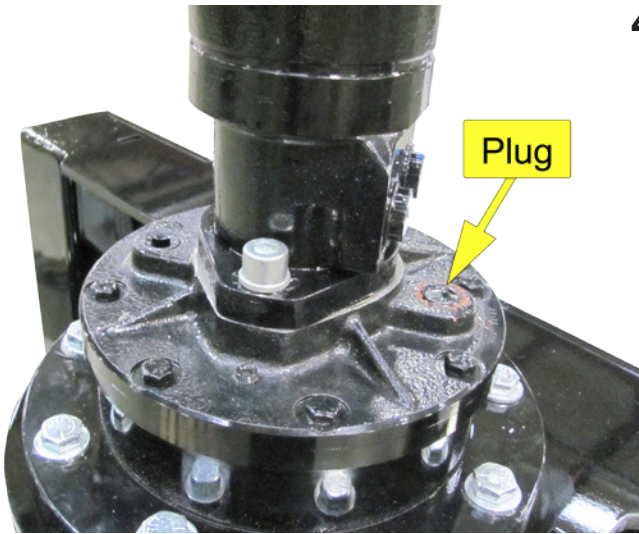
### Lubrication Points:

1. **Drive Bearings (if equipped) (figure 4.3a):** These bearings are critical components of the belt-driven units. These bearings should be greased every 10 hours with approximately two strokes from the average hand pump grease gun. The type of grease used in these bearings are also critical to the performance of the bearings. A multi-purpose, heavy-load, high-temperature, moisture resistant #2 grease is required for the drive bearings. ODB recommends Mantek Elite Supreme #1 WG Extreme Duty multi-purpose grease. Other premium quality grease that matches the above requirements may be used but after years of testing ODB recommends the Elite Supreme grease.



# Maintenance Section

Figure 4.3b



## 4.3 Lubrication, continued;

### Lubrication Points, continued:

2. **Aubur Gear Oil (figure 4.3b):** Fill Auburn gear with 90W gear oil. Undue plug as shown and fill. There is a plug at the bottom for draining if necessary.
3. **Boom Swivel (figure 4.3c):** Grease the boom bearings once every week with a multi-purpose moisture resistant #2 grease.
4. **PTO Bearing & PTO Shaft Fitting (figure 4.3d):** The End Cap PTO bearings should be greased after every 50 hours of operation with a high grade, high temperature lithium base #2 lubricant having an operating temperature of 200 degrees F. Three to five pumps with a hand operated grease gun is sufficient.
5. The PTO cross shaft and linkage should be lubricated with high temperature lithium base #2 lubricant after 200 hours of operation.
6. **Hinge and Friction Points:** Leaf vacuum operation and longevity can be improved by keeping hinges and friction points lubricated. ODB recommends that lubrication be performed weekly. Use SAE30 weight oil on hinges and a premium grade, high temperature lithium based EP#2 grease on friction points.
7. **Door Latch Hook (figure 4.3e):** Grease both hooks with high temperature lithium based EP#2 grease once a week.

Figure 4.3c

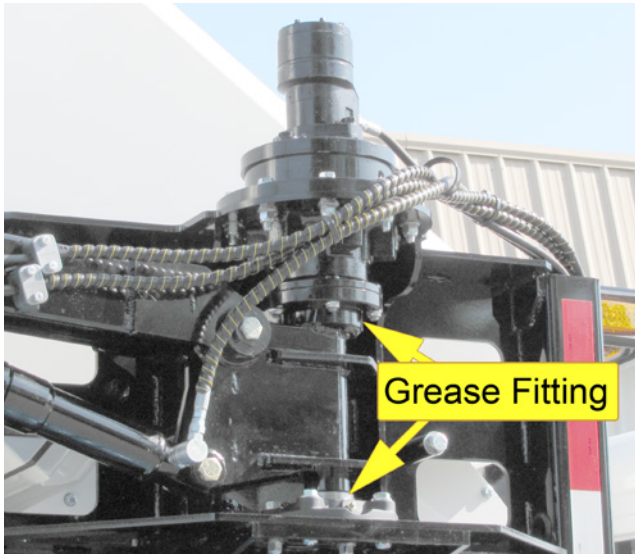
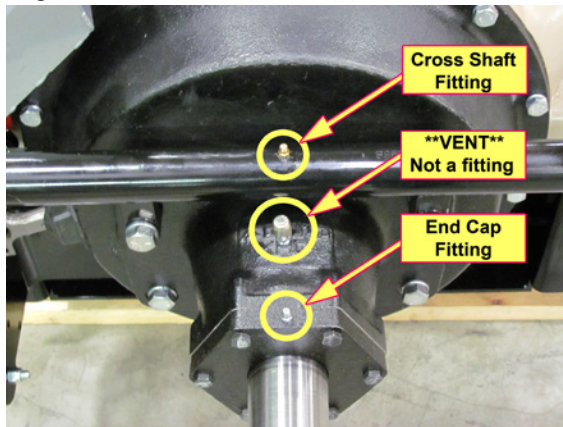


Figure 4.3d



# Maintenance Section

## 4.3 Lubrication, continued;

### Lubrication Points, continued:

#### **⚠ WARNING**

Never go under the dump body unless the body is empty and the body prop(s) is in the proper position.

#### **⚠ WARNING**

The body prop is designed and intended to support an **EMPTY** truck body in the raised position. Unload the body before using the body prop(s).

Figure 4.3e

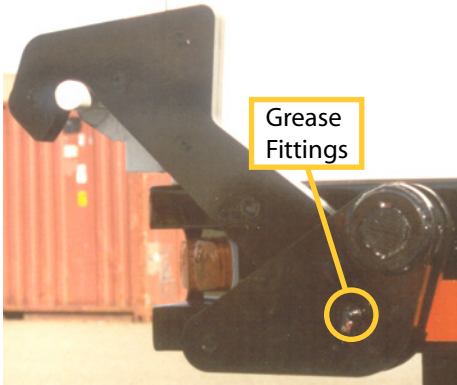
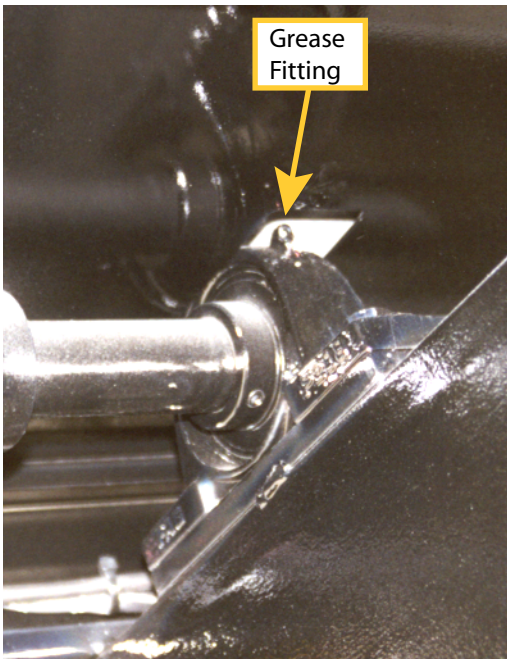


Figure 4.3g



6. **Latch Shaft Pillow Block Bearings:**  
Each pillow block bearing should be greased with a high temperature lithium based EP#2 grease once a week.
7. **Boom Cylinders:** Grease the pivot joints of the boom cylinder with a high temperature lithium based EP#2 grease once a week.

# Maintenance Section

## 4.4 Preventative Maintenance

### ⚠ CAUTION

Remove the negative battery terminal before attempting any maintenance procedures.

### ⚠ WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before performing any maintenance procedures.

The following are general preventative maintenance procedures for our standard units. Any special or custom built units may have other preventative maintenance procedures not directly mentioned in this manual. Please consult ODB before doing any preventative maintenance procedures not specifically mentioned in this manual.

Proper preventative maintenance of your unit, just like lubrication, correlates directly to how long your unit will last. A properly maintained unit will last much longer than a unit that is not maintained properly.

### Preventative Maintenance:

1. **Engine Oil:** Change the oil and oil filter according to schedules provided in your engine's owner's manual (EOM). The engine oil level should be checked every day. The level should be checked after the engine has been stopped for a period of time. This will allow the oil to drain back into the oil pan, allowing a better indication of the true oil level. If the level is low, see the engine's owner's manual for the correct type of oil.
2. **Engine Coolant:** Check the coolant level before starting the unit each day. The coolant level should not be less than one inch below the top of the radiator.

### ⚠ CAUTION

**NEVER** check the engine coolant when the engine is hot. Allow the engine to cool at least one hour before checking the coolant. Check the engine owner's manual for instructions. **ALWAYS** wear eye and hand protection when working with the radiator.



# Maintenance Section

## 4.4 Preventative Maintenance, continued;

### Preventative Maintenance, continued:

3. **Engine Radiator:** The engine radiator on a leaf vacuum becomes clogged with dust and debris frequently because of the nature of the job. If the radiator is not cleaned properly it WILL cause improper cooling and WILL eventually cause serious damage to your engine. The debris accumulating on the radiator can be lessened by lowering the RPM on the engine to a level just enough to vacuum the leaves. The higher the RPM the more dust that is put into the air. Also, it may be necessary to put mesh or tarps on the top of the leaf box container to reduce the debris and dust. If this is done, make sure there is enough air ventilation on the box so the box is not blown apart. Proper belt condition and coolant mix-ratio, as well as coolant conditioners, are all critical to proper engine cooling. See the engine's owner's manual for specifics on coolant mixture ratios and conditioners. The radiator should be inspected and cleaned with compressed air everyday at the very least.

### DANGER

**NEVER attempt to clean or inspect the radiator with the engine running or while the engine is HOT. Allow the engine to cool at least one hour before maintaining the radiator. Check the engine owner's manual for instructions. ALWAYS wear eye and hand protection when working with the radiator.**

4. **Engine Air Cleaner:** Due to the large amounts of dust generated in collection leaves, it is critical to your engine's life that the pre-cleaner and air filter be maintained properly. The pre-cleaner should be cleaned at least daily of any debris that has accumulated. If conditions warrant it should be cleaned more. The air filter should be checked daily and should be replaced at the first sign of it being dirty. DO NOT attempt to clean the air filter, replace the dirty air filter. It is a good idea to clean out the air filter housing once a week to clean any dust debris that may have accumulated.
5. **Tires and Wheels:** Tires and wheel lug nuts should be checked on a daily basis. Tires should be checked for excessive wear and proper air pressure. Check the side wall of the tire for proper inflation pressure. Torque all 1/2" diameter lug nuts from 90 to 120 foot pounds. Torque all 5/8" diameter lug nuts from 175 to 225 foot pounds. Consult the axle manufacturer's owner's manual for more detailed information.

# Maintenance Section

## 4.4 Preventative Maintenance, continued;

### Preventative Maintenance, continued:

6. **Trailer Brakes (if equipped):** Most of the newer ODB leaf vacuums have electric brakes on the axle(s). It is critical that these brakes work properly. The trailer's brakes should be checked daily, before leaving the equipment yard, for proper operation. The trailer brakes are designed to work in synchronization with your tow vehicles brakes. Never use your tow vehicle or trailer brakes alone to stop the combined load. The synchronization between the tow vehicle and the leaf vacuum is accomplished through the brake controller and needs to be set correctly. Please read the brake controllers manual and the axle owner's manual for these procedures.

### **⚠ WARNING**

**DO NOT tow the leaf vacuum with damaged or non-operating brakes. Check the brakes daily for proper operation.**

The brakes should be adjusted after the first 200 miles of operation when the brake shoes and drums have "seated" and at 3,000 mile intervals, or as use and performance requires. The adjustment procedures are beyond the scope of this manual, please see the axle owners/service manual for specific instructions.

The trailer brakes should be inspected and serviced at yearly intervals or more often as use and performance requires. Magnets and shoes must be changed when they become worn or scored thereby preventing adequate vehicle braking. Again, see the axle owner's/service manual for specific procedures.

7. **FUEL TANK:** Fill the fuel tank at the beginning of the work shift leaving a gap of at the top of the tank for expansion of fuel. A full fuel tank will reduce the possibility of condensation forming in the tank and moisture entering the fuel lines. Check the fuel lines daily for cracks, holes or tightness.

# Maintenance Section

## 4.4 Preventative Maintenance, continued;

### Preventative Maintenance, continued:

#### CAUTION

**ALWAYS** wear eye and hand protection when working with the battery.

8. **BATTERY:** ODB's units are supplied with "maintenance free" batteries so there is no need to check fluid levels but the battery terminals should be checked daily for corrosion. Remove any corrosion with a wire brush and coat the terminals with light grease or petroleum jelly to reduce the possibility of corrosion. Also check the battery cable for wear all cable connections and battery tie downs to be certain that they are not loose.
9. **DRIVE BELT (if equipped):** The main drive belt should be checked daily for cracks and for proper tension. If the belt shows any sign of

#### CAUTION

**Remove the negative battery cable before opening the belt guard.**

cracking it should be replaced immediately. The proper tension of the belt should be approximately 1/2" deflection when applying a 8 pound pull.

10. **FASTENERS:** Fasteners should be checked weekly for the first 30 days and monthly thereafter. They must be in place at all times and properly torqued. For general torque values see the torque chart at the end of this section.
11. **INSTRUMENT PANEL AND CIRCUIT BOARD:** The instrument panel and circuit board should be cleaned with compressed air daily. Also the circuit board connectors should be wiped clean and have non conductive grease applied weekly to help maintain solid connections.
12. **BOOM HYDRAULIC PUMP:** Check the fluid level daily. If fluid needs to be added, automatic transmission fluid (ATF) is recommended. Clean debris and oil off the solenoid and pump daily. A build up of debris can cause premature failure to the pump. Check and tighten all hydraulic fittings making sure there are no leaks.

# Maintenance Section

## 4.4 Preventative Maintenance, continued;

### Preventative Maintenance, continued:

13. **Hoist Hydraulic Fluid and Filter:** The hoist hydraulic fluid and filter should be changed every 100 hours of operation. The fluid should be completely drained and fresh high quality **ISO 68 non-foaming** hydraulic fluid should be added.



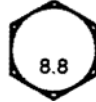


### CAUTION

**ALWAYS raise and support the box container properly using the steps outlined in this manual.**

14. **Exhaust Duct Gasket:** The 1.5" thick gasket should be checked for wear every 200 hours. This gasket creates a tight seal between the box container and the blower housing.
15. **Axle Hangers:** The hanger bolts should be checked periodically for tightness and wear.
16. **Hydraulic Fittings:** Check all hydraulic fittings for leaks and tightness. Any leak could become a hazard, fix immediately.

# Maintenance Section

## 4.5 Torque Values

<u>INCH BOLT AND CAP SCREW TORQUE VALUES</u>					<u>METRIC BOLT AND CAP SCREW TORQUE VALUES</u>						
TYPE	SAE GRADE					CLASS					
	5		8			8.8 or 9.8		10.9		12.9	
HEAD MARK					HEAD MARK						
SIZE(D)	LB-FT		LB-FT		SIZE(D)	LB-FT		LB-FT		LB-FT	
	Lub*	Dry*	Lub*	Dry*		Lub*	Dry*	Lub*	Dry*	Lub*	Dry*
1/4"	7	9	10	12.5	M6	6.5	8.5	9.5	12	11.5	14.5
5/16"	15	18	21	26	M8	16	20	24	30	28	35
3/8"	26	33	36	46	M10	32	40	47	60	55	70
7/16"	41	52	58	75	M12	55	70	80	105	95	120
1/2"	63	80	90	115	M14	88	110	130	165	150	190
9/16"	90	115	130	160	M16	140	175	200	255	240	300
5/8"	125	160	175	225	M18	195	250	275	350	325	410
3/4"	225	280	310	400	M20	275	350	400	500	460	580
7/8"	360	450	500	650	M22	375	475	540	675	625	800
1"	540	675	750	975	M24	475	600	675	850	800	1000
1-1/8"	675	850	1075	1350	M27	700	875	1000	1250	1150	1500
1-1/4"	950	1200	1500	1950	M30	950	1200	1350	1700	1600	2000
1-3/8"	1250	1550	2000	2550	M33	1300	1650	1850	2350	2150	2750
1-1/2"	1650	2100	2650	3350	M36	1650	2100	2350	3000	2750	3500

\***Lub** means coated with a lubricant such as engine oil, or fasteners with phosphate or oil coatings. "Dry" means plain or zinc plated without any lubrication.

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Make sure fastener threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening. Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not the bolt head.

# Maintenance Section

## 4.6 Quick Reference Chart

### CAUTION

Only properly trained personnel should perform maintenance or repair on this equipment. Consult ODB before performing any maintenance procedures that is not specifically covered in this manual. Improper maintenance or repair may void any and all warranties on this equipment.

**NOTE:** THIS CHART IS FOR REFERENCE ONLY, CONSULT THE ENGINE'S OWNERS MANUAL FOR SPECIFIC DETAILS. FOR JOHN DEERE 4045T ENGINES ONLY.

ITEM	
Fuel Requirement	Diesel fuel specified to EN 590 or ASTM D975
Fuel Capacity	42 gallons
Low / High Idle Speed	750 rpm / 2,600 rpm
Engine Oil: Grade Viscosity Capacity	API service classification; CG-4, CF-4 SAE15W-40 / SAE10W-40, or SAE 5W-30 (see EOM manual for details) See Engine owner's manual
Coolant Type Mixture Freezing Point Amount	Permanent type of antifreeze; green in color (see EOM manual) Water 50%; Antifreeze 50%; (1:1) -35 degrees C (-31 degrees F) 2.5 US gallons
Valve Body Hydraulic Tank Type Amount	High Viscosity, Premium Hydraulic Fluid; SAE46 recommended. 12 US gallons

### WARNING

Improper maintenance or repair **CAN** result in equipment damage and/or personal injuries.

### DANGER

**BEFORE CONTINUING**, please read and understand the Safety, Pre-operating and Operating sections of this manual before doing any procedures in this section.

0125 13

# Maintenance Section

## 4.7 Kraft Fluid Drive Maintenance (Optional)

Controllare, ogni 3 mesi, il livello dell'olio nel giunto. Cambiare l'olio ogni 4000 ore di funzionamento oppure una volta all'anno.	Check, every 3 months, the fluid coupling oil level. Change oil every 4000 working hours or once a year, whichever occurs first.	
Ingrassare il cuscinetto dell'albero di uscita ogni settimana.	Grease output shaft bearing every week.	
Controllare, periodicamente, lo stato dei blocchetti in gomma del giunto elastico.	Check, periodically, elastic coupling rubber blocks condition.	
E' consigliabile, ogni 4000 ore di funzionamento, cambiare tutti gli anelli di tenuta rotante e controllare lo stato dei cuscinetti.	It is advisable, every 4000 working hours, to change all rotating seals and to check bearings condition.	
Controllare, periodicamente, che la taratura del termostato, se installato, sia uguale al valore originariamente impostato (vedere certificato di collaudo e TF5941-O).	Check, periodically, that temperature switch whether installed, set value be the same as originally adjusted (see test certificate and TF5941-O).	
Pulire periodicamente la sonda del termostato, se installato.	Clean periodically the temperature switch bulb, whether installed.	
TABELLA INCONVENIENTI		
SINTOMO	CAUSA	RIMEDIO
Scarso prestazioni	Livello olio	Controllare il livello (olio freddo) ed aggiungere se necessario Controllare la macchina condotta Controllare i giri del motore.
	Tipo olio	Utilizzare olio indicato in tabella
Surriscaldamento	Scorrimento eccessivo	Controllare il livello olio Verificare l'installazione Controllare i giri del motore
	Scarsa ventilazione	Pulire le aperture per la ventilazione.
	Cuscinetto non lubrificato	Verificare il livello olio ed eventualmente aggiungere
	Cuscinetto in uscita danneggiato	Sostituire
Perdita olio lato motore	Carico radiale eccessivo	Ridurre la tensione delle cinghie
	Tappo conico	Rimontare con sigillante per filetti
Perdita olio lato uscita	Anello OR	Sostituire
	Tenuta rotante	Sostituire. Controllare l'usura sull'albero.
	Tappo fusibile se installato	Rimontare con sigillante per filetti
Rumore.	Anelli OR	Sostituire
	Tenuta Rotante.	Sostituire. Controllare l'usura sull'albero.
	Rottura cuscinetto	Sostituire
	Olio con troppa schiuma	Controllare il livello ed il tipo di olio
Intervento termostato	Usura eccessiva giunto elastico (vibrazioni torsionali?, temperatura eccessiva?, disallineamento? olio.)	Smontare e sostituire i blocchetti od il giunto elastico completo.
	Usura della dentatura tra albero uscita mozzo, girante interna.	Smontare e sostituire le parti usurate.
	Alta temperatura olio	Vedere "surriscaldamento"
	Errata taratura termostato	Vedere certificato di collaudo e TF 5941-O
TROUBLE SHOOTING		
SYMPTOM	CAUSE	REMEDY
Poor performances	Oil level.	Check level (cold oil) and add as necessary. Check driven machine. Check engine rpm.
	Oil type	Use recommended oil (see table).
Overheating	High slip	Check oil level. Check installation. Check engine rpm.
	Low ventilation.	Clean ventilation openings.
	No lubricated bearing.	Check oil level. Add oil if required.
	Damaged output bearing.	Replace.
Oil leakage at engine side.	Too high radial load.	Decrease belt tension.
	Taper plug	Remount using thread sealant.
	O-ring	Replace.
Oil leakage at output side.	Rotating seal.	Replace. Check shaft wear.
	Filling plug.	Remount using thread sealant.
	Fusible plug, whether installed.	Replace.
	O-ring	Replace.
Noise	Rotating seal.	Replace. Check shaft wear.
	Bearing failure	Replace.
	Too much oil foam.	Check oil level and type.
	Elastic coupling wear. (Torsional vibration ? high temperature ? misalignment ? oil ?)	Dismantle and replace rubber blocks or complete elastic coupling
Temperature switch intervention.	Spline wear between output shaft/hub, inner impeller	Dismantle and replace worn components.
	High oil temperature.	See "overheating".
	Wrong switch setting.	See test certificate and TF 5941-O.
tf6217-3 06/04/01	TRANSFLUID S.r.l. via V.Monti 19-20016 Pero (MI) Italy tel.0039-02-339315.1 - fax.0039-02-33910699 - www.transfluid.it - e-mail:info@transfluid.it	



**CAUTION**

**DO NOT ATTEMPT TO OPERATE  
OR REPAIR  
THE LEAF COLLECTOR WITHOUT FIRST  
READING AND UNDERSTANDING THIS  
MANUAL**

IF YOU HAVE ANY QUESTIONS CONCERNING THE  
INSTALLATION OR OPERATION OF THIS UNIT, PLEASE CALL  
ODB FOR ASSISTANCE BEFORE ATTEMPTING TO REPAIR OR  
OPERATE THE UNIT.

**IMPROPER USE OF ANY MACHINE CAN  
RESULT IN SERIOUS INJURY!**

**STUDY AND FOLLOW ALL SAFETY  
PRECAUTIONS BEFORE OPERATING OR  
REPAIRING UNIT**

THIS MANUAL IS AN INTEGRAL PART OF THE LEAF COLLECTOR AND SHOULD  
BE KEPT WITH THE UNIT WHEN IT IS SOLD.

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
800-446-9823







**5.0 SERVICE SECTION**

**5.0 Service and Troubleshooting**

**5.10 Wiring Diagrams**

**5.20 Hoist Hydraulic System**

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
**800-446-9823**



## SERVICE AND TROUBLESHOOTING

### 5.0 SERVICE SECTION

5.1 Removing Blower Housing Face .....	59
5.2 Replacing the Drive Belt (if equipped) .....	60
5.2 Replacing the Drive Belt (if equipped), .....	61
5.3 Replacing the Drive Bearings(if equipped) .....	62
5.3 Replacing the Drive Belt (if equipped), .....	63
5.3 Replacing the Drive Bearings (if equipped), continued.....	64
5.4 Impeller Installation and Removal.....	65
5.4 Impeller Installation and Removal.....	65
5.4 Impeller Installation and Removal, continued.....	66
5.5 Replacing the Blower Housing Liners.....	67
5.5 Replacing the Blower Housing Liners; continued, .....	68
5.6 Auto Mfg. Clutch Adjustment - 2008 and after .....	69

**ODB COMPANY**  
**5118 Glen Alden Drive**  
**Richmond, VA 23231**  
**800-446-9823**

# Service Section

## 5.1 Removing Blower Housing Face

figure 5.1a

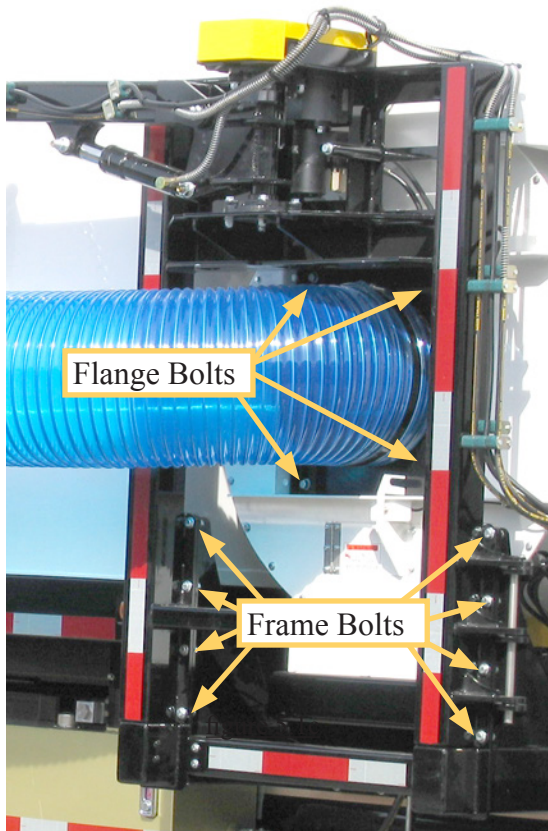


figure 5.1b

figure 5.1c

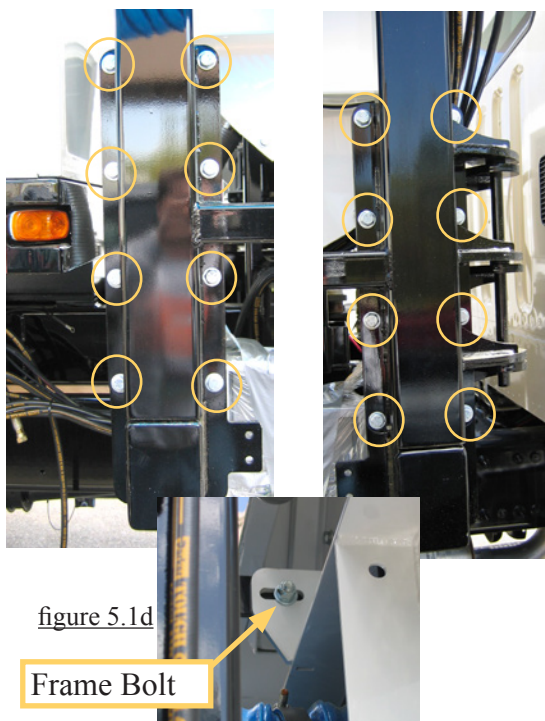


figure 5.1d

Frame Bolt

### **⚠ WARNING**

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

### **⚠ WARNING**

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

### **Removing Blower Housing Face (refer to 5.1a and 5.1b):**

1. Raise the dump body and secure it as described previously in this manual, making sure the body prop is in place.
2. Unbolt the 4 bolts holding the intake hose flange assembly to the blower housing face (figure 5.1a). and remove the hose assembly.
3. Remove the frame bolts (figure 5.1b and 5.1c)
4. Remove the bolt, that's behind the boom mast, which holds the frame to the housing. (figure 5.1d)
5. The frame should swing open on the hinge.
6. Remove the housing bolts from the housing face to gain access to the impeller.
7. To install reverse the above procedure.

# Service Section

## 5.2 Replacing the Drive Belt (if equipped)

figure 5.2a



### **⚠ WARNING**

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

### **⚠ WARNING**

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

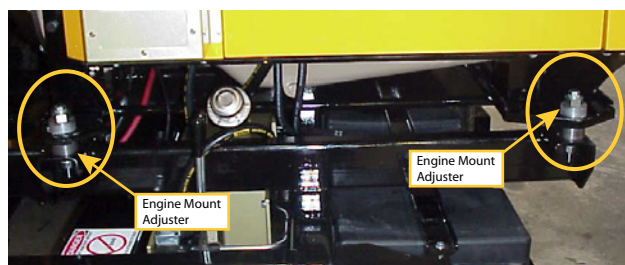
### **Removing Drive Belt (refer to 5.1a thru 5.1d):**

1. Open the belt guard (figure 5.2a) to gain access to the power band.
2. Remove the top cover plate (figure 5.2b).
3. Loosen the 1/2" nut on the engine mount adjuster bolts (item A on figure 5.2b & 5.2c). There are 4, one in each corner.
4. This should allow the belt to have enough slack to slip out (figure 5.2d on next page).

figure 5.2b



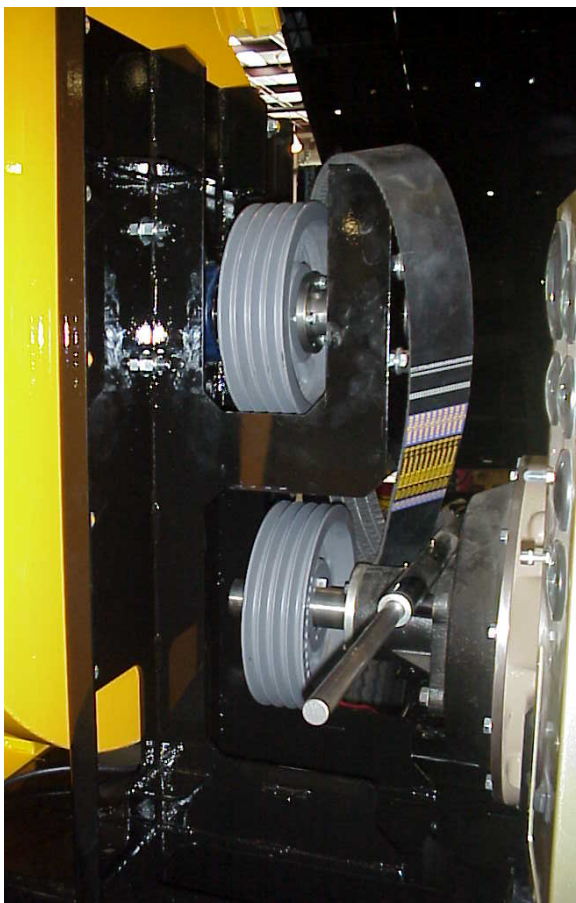
figure 5.2c



# Service Section

## 5.2 Replacing the Drive Belt (if equipped),

figure 5.2d



### **⚠ WARNING**

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

### **⚠ WARNING**

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

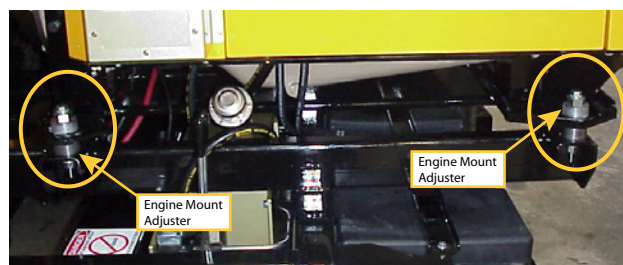
### **Installing the Drive Belt (refer to 5.1a thru 5.1d):**

1. Install the belt by reversing the previous procedure.
2. If the belt needs to be adjusted more, loosen the 1/2" nut on the engine adjuster bolt (item A figure 5.2a) and "fine tune" the adjustment using the large nut (item B Figure 5.2b). Be careful to keep the engine level.
3. After adjusting the engine height using the large nut, tighten down the 1/2" nut (Item A, figure 5.2b).

figure 5.2b



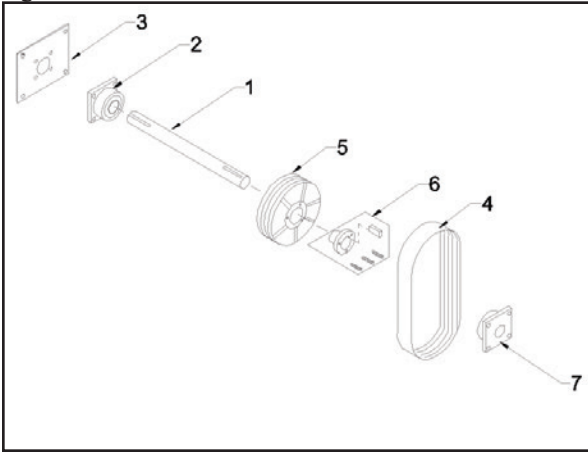
figure 5.2c



# Service Section

## 5.3 Replacing the Drive Bearings(if equipped)

figure 5.3a



### **⚠ WARNING**

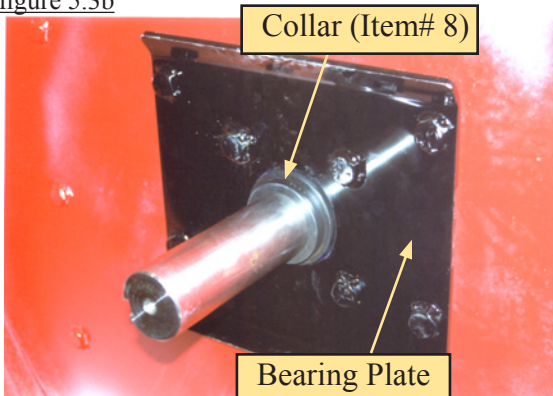
Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

### **⚠ WARNING**

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

figure 5.3b



### **Removing Drive Bearings (refer to 5.3a thur 5.3d):**

1. Remove the impeller and drive belt as described in this manual.
2. If the bearings have not "seized" onto the shaft then removal is straightforward.
3. Loosen the pulley (item# 5, fig. 5.3a) by removing the bushing bolts (item# 6, fig. 5.3a).
4. Remove the bearing collar (Item# 8, fig. 5.3b), if equipped, at the rear of the front bearing (the bearing closest to the blower housing).
5. On the rear bearing (closest to the engine) loosen the set screw on the bearing lock collar (fig. 5.3c)
6. Using a punch, loosen the lock collar. (fig. 5.3d)
7. Pull the shaft out toward the blower housing. The bearing plate, front bearing and pulley should come out in one unit.

figure 5.3c



figure 5.3d

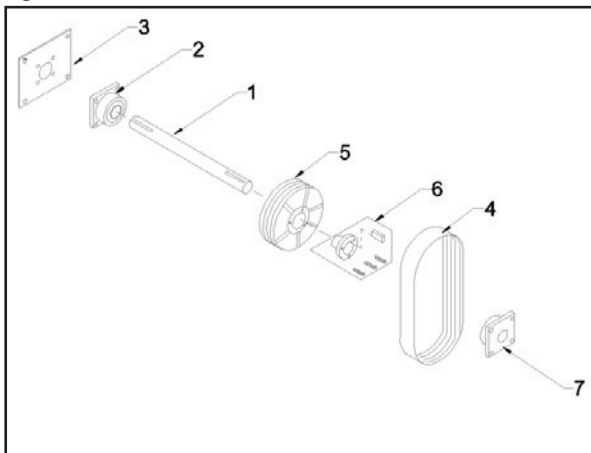


# Service Section

## 5.3 Replacing the Drive Belt (if equipped),

Review the safety section of this manual before attempting these procedures.

figure 5.3a



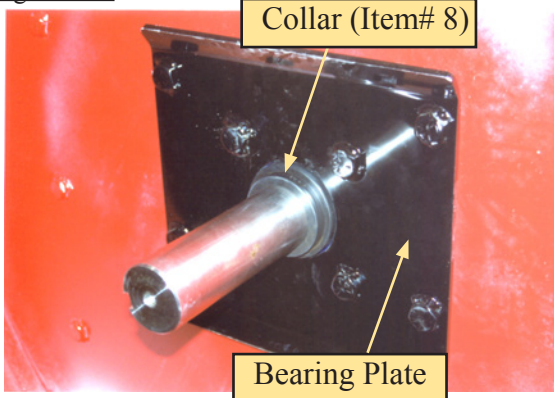
### Removing the Drive Bearings, continued:

8. If the shaft doesn't pull out easily, lubricate the shaft generously where the shaft goes through the bearings. If the shaft still doesn't come out, the final solution is to cut the shaft in half.
9. Once the shaft is out, remove the front bearing from the shaft by using steps 5 and 6.

### Installing the Drive Bearings:

1. Make sure the shaft is clean and remove any burrs.
2. Bolt up the rear bearing (closest to the engine) to the frame.
3. Bolt the front bearing to the bearing plate
4. Bolt the bearing plate (fig. 5.3b) up to the blower housing and bearing frame.
5. Slide the shaft through the front bearing, making sure the front locking collar is slid on to the shaft.
6. Once the shaft is through the front bearing, install the pulley onto the shaft, but don't tighten it until the bearings have been installed and your sure the two pulleys are lined up correctly.
7. Slide the shaft through the rear bearing (closest to the engine). Make sure the front locking collar is put on before the bearing.

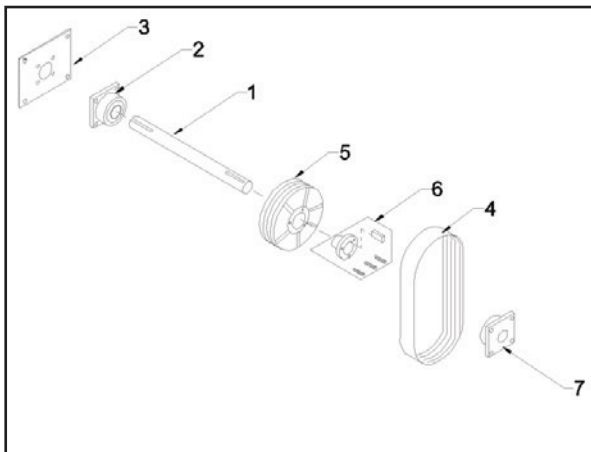
figure 5.3b



# Service Section

## 5.3 Replacing the Drive Bearings (if equipped), continued

figure 5.3a



Review the safety section of this manual before attempting these procedures.

### Installing the Drive Bearings, continued:

8. Once the shaft is in place, lock down the bearings:
9. Starting with the rear bearing (closest to the blower housing) install the rear collar on the blower housing side (figure 5.3b). The rubber seal should be facing the bearing.
10. Push the steel collar up to the bearing and make sure the groove in the collar goes inside the groove in the bearing.
11. Tighten the set screw (figure 5.3e).
12. Install the front locking collar sliding the locking collar up to the bearing and then turn the collar clockwise until it slips over the inner ring extension and engages the eccentric. Turn by hand until the parts are locked together.
13. Place a punch or drift in the blind hole in the collar and strike it sharply to lock the collar and ring tightly together (figure 5.3f)
14. Tighten the set screws with an Allen wrench until the set screw stops. (figure 5.3g)
15. Do steps 11-14 for the other bearing also.
16. Line up the pulleys and tighten the busing.
17. Re-install the belt guards and impeller as described earlier.

figure 5.3b

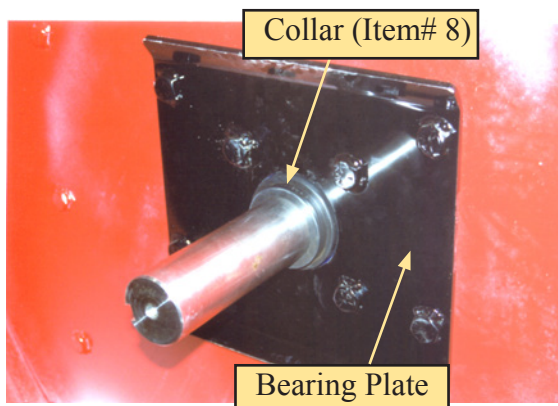


figure 5.3e

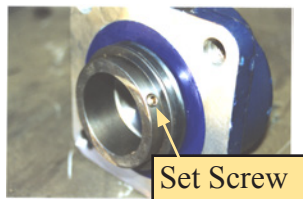


figure 5.3f

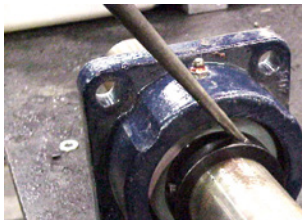


figure 5.3g





# Service Section

## 5.4 Impeller Installation and Removal

### REMOVAL



**CAUTION:** Before removing the blower housing face remove the negative battery cable to ensure unit can not be started.

1. The blower housing face must be removed to gain access to the impeller. Use an overhead crane or forklift to support the face while removing.
2. Once the face has been removed, remove the shaft protector (Fig. 1 or 2).
3. Saturate the shaft and bushing using a penetrating lubricant to help loosen the bushing. Clean any grease or debris from the bushing and shaft.
4. Remove the 3 bolts attaching the bushing to the impeller.(Fig. 3) Being careful not to break the bolts. If a set screw is on the lip of the bushing, loosen it using an allen wrench.(Fig. 4)
5. Using two of the bolts that were just removed screw those bolts into the threaded holes on the bushing. Drive the two bolts into the bushing.(Fig. 5) This will separate the bushing from the impeller. Alternate from one bolt to the other driving only about a 1/4" at a time to keep the bushing coming out straight. It is imperative to keep the bushing straight to remove it.

**IMPORTANT: Be sure to drive the bushing out evenly or it will get in a bind making removal much harder.**

6. If the bushing does not come off using the two bolts, drill and tap several additional 3/8-16 holes around the bushing. Using Grade 8, 3/8-16 - 2 inch bolts, alternately drive the bolts 1/4" at a time to remove the bushing. **KEEP THE BUSHING STRAIGHT** while removing.

**IMPORTANT: If additional holes were drilled in the bushing, it can not be reused. It must be replaced.**

7. Once the bushing has been removed use an overhead crane or other suitable device to help lift the impeller out of the blower housing.
8. At this point it would be a good idea to inspect the blower housing liners and blower housing for any damage or wear. Any damage or wear to the liners should be fixed by replacing the liners immediately.

Fig. 1



Fig. 2



Fig. 3



Fig. 4

Direct  
Drive



Fig. 5

Belt  
Drive



# Service Section

## 5.4 Impeller Installation and Removal, continued

### INSTALLATION

**CAUTION:** Before removing the blower housing face remove the negative battery cable to ensure unit can not be started.

1. Clean the shaft of any debris and remove any rust using a 120 grit emory cloth.
3. Using an overhead crane or other suitable lifting device lift the impeller on to the shaft. Turn the impeller to align the keyways of the shaft with the keyway in the impeller.
4. Insert key into the keyway. A light sanding of the keyway may be needed, as well as a few light blows with a rubber mallet.
5. Apply a generous coat of anti-sieze compound to the outside of the bushing being sure to cover any area that will come in contact with the impeller.
6. Tap the bushing onto the shaft aligning the keyways.
7. **BELT DRIVE UNITS:** Align the bushing and key to be flush with the end of the shaft (Fig 1).

**DIRECT DRIVE UNITS:** The bushing and key should protrude from the shaft about 1/2 inch (Fig. 2).

8. Put the 3 bolts into the non-threaded holes and drive them into the impeller holes evenly. Alternate between the three bolts as you drive the bolts in. Torque to 40 to 50 lbs/ft. There should be a gap of 3/8" to 1/2" between the bushing and the impeller.

**IMPORTANT:** Slowly spin the impeller by hand making sure that the back of the impeller is not hitting any of the bolt heads located at the back of the blower housing.

Fig. 1



Fig. 2

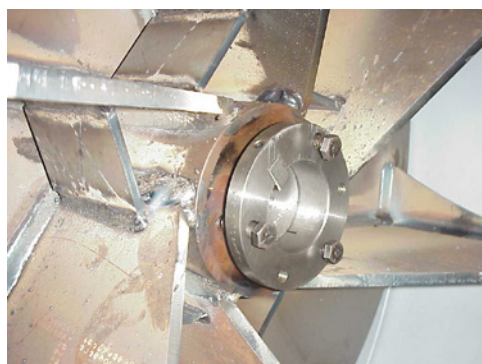


Fig. 3



Fig. 4

Direct  
Drive



Fig. 5

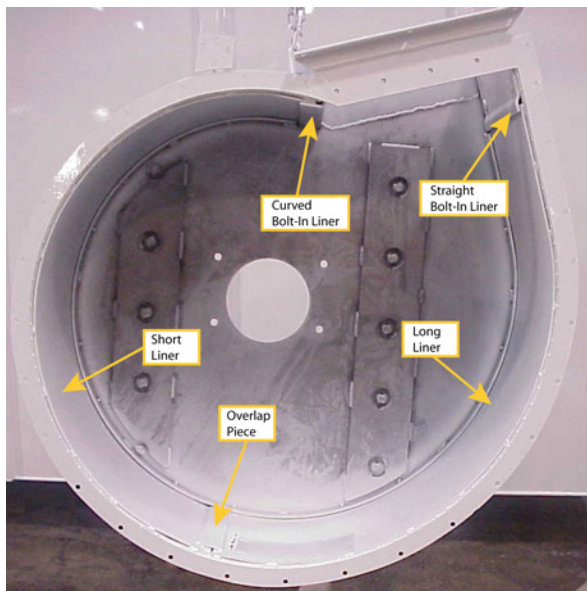
Belt  
Drive



# Service Section

## 5.5 Replacing the Blower Housing Liners

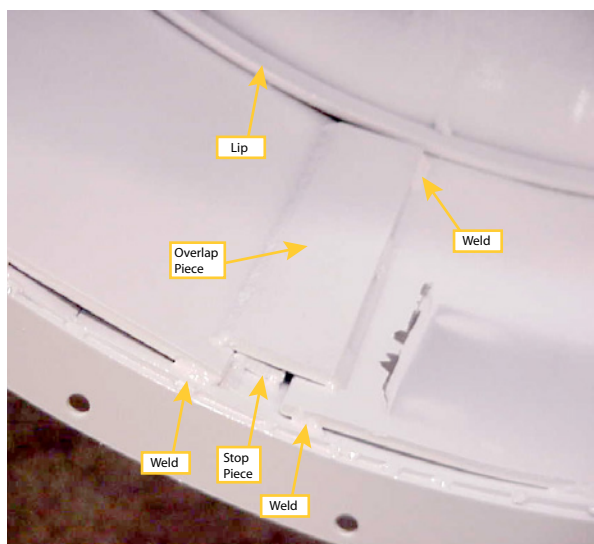
figure 5.5a



### **⚠ WARNING**

Keep all fuel and fuel fumes away from the unit when grinding or welding. Work only in a well ventilated area.

figure 5.5b



### **⚠ WARNING**

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

### **⚠ WARNING**

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures. To gain access to the interior of the blower housing please see the previous sections.

### **Removing and installing the Liners (refer to 5.5a and 5.5b):**

1. Unbolt the blower housing face as described previously in this manual.
2. Remove the curved and straight bolt-in liners by removing the appropriate bolts.
3. With a grinder cut out the remaining welds to free the liners. DO NOT remove the "stop piece" at the bottom of the housing.

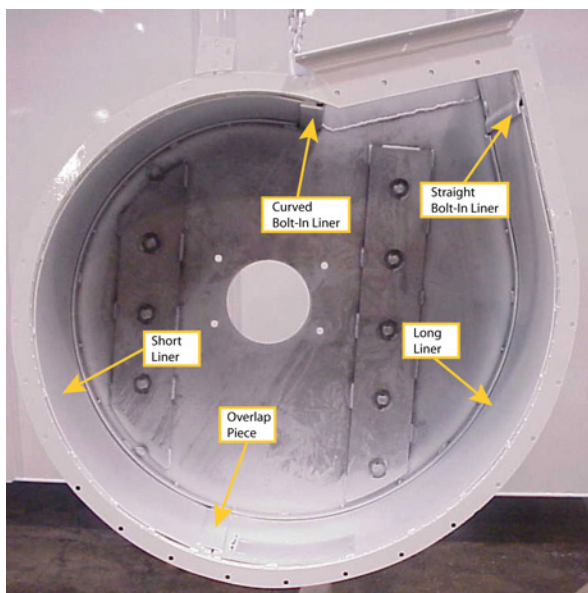
#### TO INSTALL:

1. Place the short liner into lip at the rear of the housing and line up the bottom of the liner with the "stop" at the bottom of the housing. The short liner has the overlap piece on it and should be installed as shown in the pictures at the left.
2. Tack weld the liner in place every 8 to 10 inches to help keep the liner in place.

# Service Section

## 5.5 Replacing the Blower Housing Liners; continued,

figure 5.5a



### **⚠ WARNING**

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

### **⚠ WARNING**

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures. To gain access to the interior of the blower housing please see the previous sections.

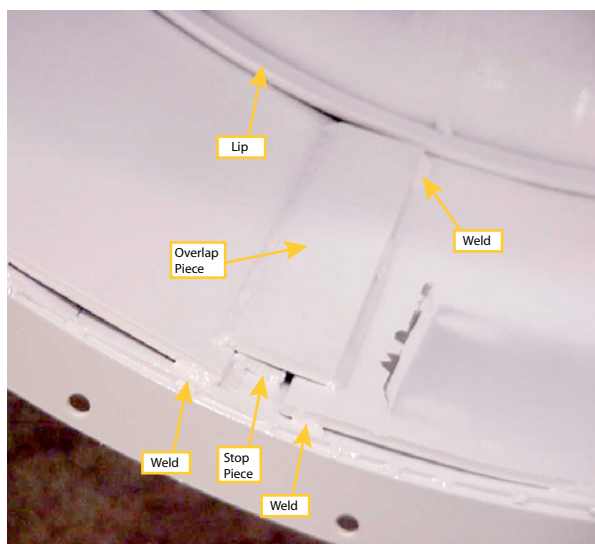
### Installing the Liners (refer to 5.5a and 5.5b), continued;

### **⚠ WARNING**

Keep all fuel and fuel fumes away from the unit when grinding or welding. Work only in a well ventilated area.

3. Install the long liner the same way as the short liner except the long liner should slip under the overlap piece. Make sure the liner slips under the rear lip and the overlap piece.
4. Tack weld the long liner to the overlap piece and tack weld around the liner as you did on the short liner.
5. Install the two bolt-in liners just as they were removed.

figure 5.5b



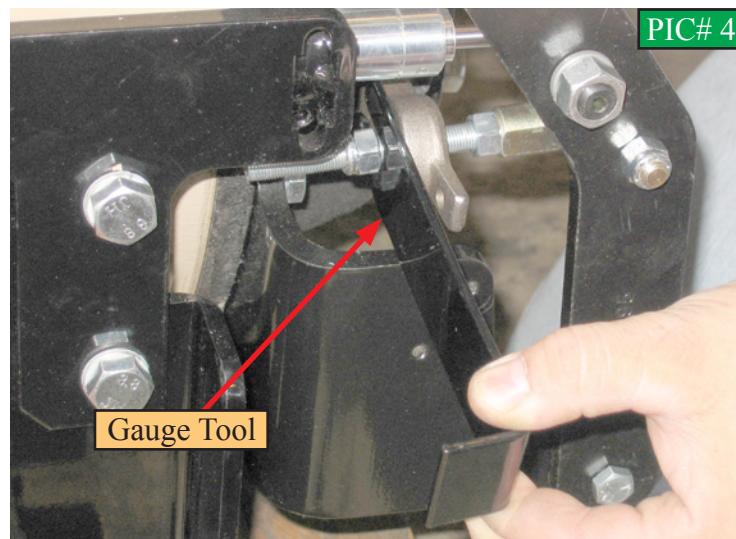
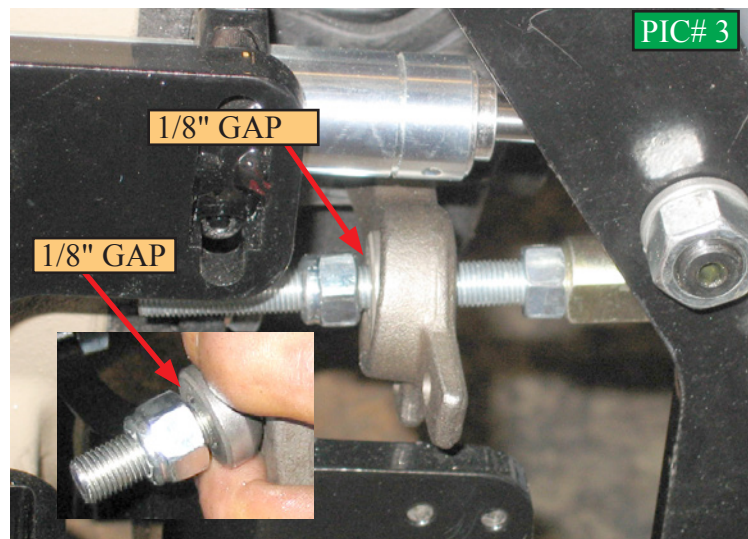
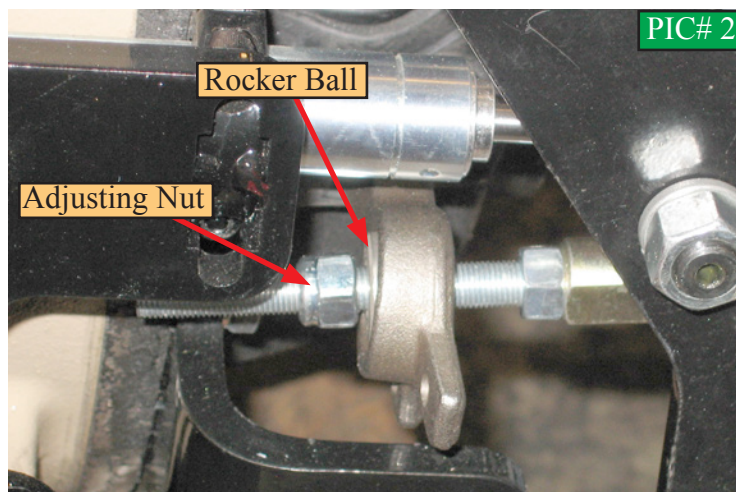
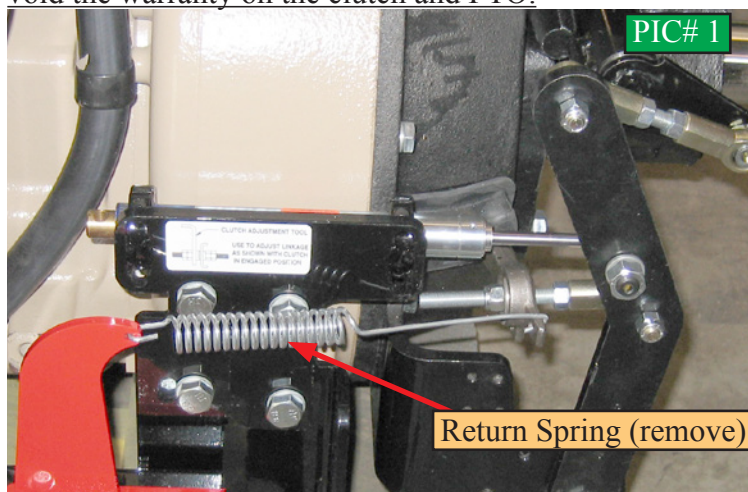
# Service Section

## 5.6 Auto Mfg. Clutch Adjustment - 2008 and after

### CAUTION

Rotating Shafts, pulleys, and moving belts can cause severe injury or can be fatal. The engine and driven unit **MUST** be completely stopped before any adjustments or work is attempted to the engine, driven unit, or the PTO clutch itself.

The clutch linkage should be checked after the first 15 hours of operation and every 40 hours there after. An improperly adjusted clutch can result in premature wear to the clutch disc, flywheel and the throwout bearing and will void the warranty on the clutch and PTO.



### ADJUSTMENT OF THE CLUTCH LINKAGE

1. Make sure the engine is OFF and remove the negative battery cable to ensure the unit can not accidentally be started.
2. Remove the spring from the throwout arm. (See PIC# 1) An accurate measure of the arm tension **CAN NOT** be made with the spring attached.
3. With the clutch in the engaged position adjust the nut (See PIC# 2) against the "rocker ball" until a 1/8" gap between the nut and rocker ball is visible (See PIC# 3).  
If available, use the special 1/8" gauge tool to slip between the nut and rocker ball. With the proper adjustment the
4. gauge should slide between the nut and rocker ball with a slight amount of pressure. (See PIC# 4)  
Move the adjustment nut to create the 1/8" gap.
5. Re-install the return spring.
6. Place the handle in the disengaged position. Check to make sure that the PTO output shaft turns freely.



## 5.20 HYDRAULIC DIAGRAM

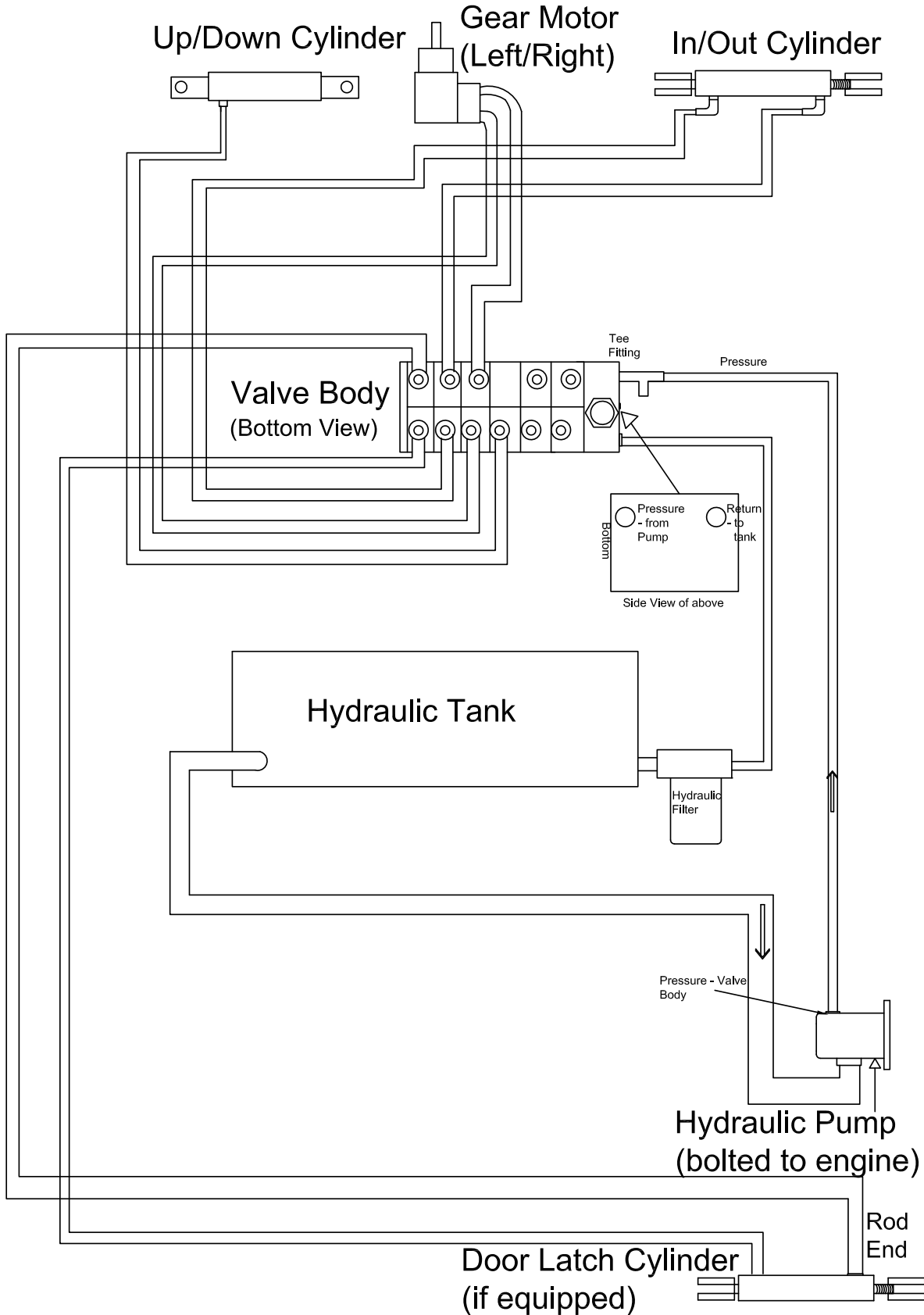
### 5.20 HYDRAULIC DIAGRAM

5.20.1 Hydraulic Diagram.....	71
5.20.2 Valve Body Hydraulic Diagram.....	72

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
**800-446-9823**

# Service Section

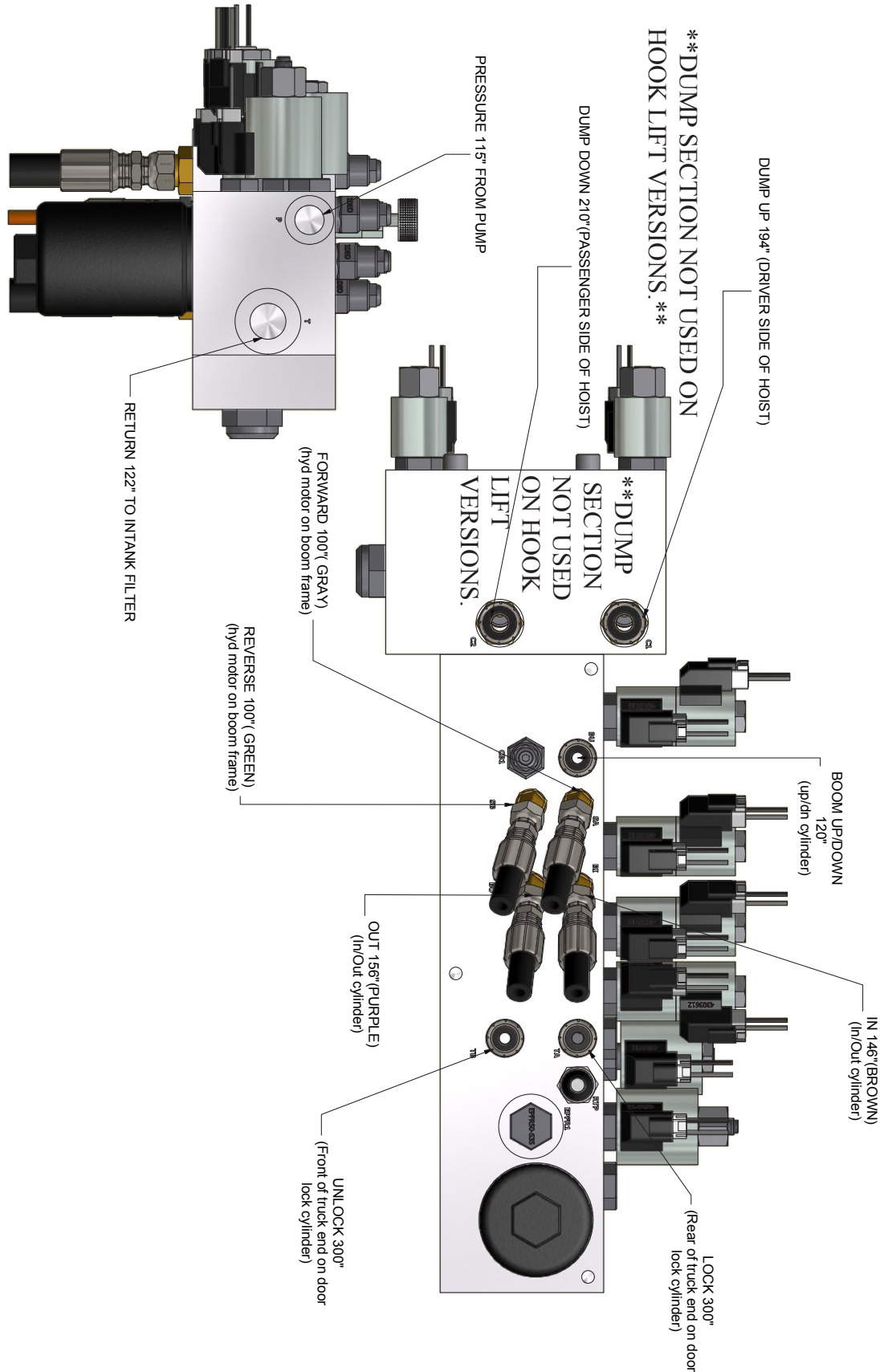
## 5.20.1 Hydraulic Diagram



022213

# Service Section

## 5.20.2 Valve Body Hydraulic Diagram



012213





## **5.30 IQAN ADVANCED SCREENS**

The IQAN unit has an easy to navigate system that allows you to see module information, logs, set preferences or adjust parameters. Great care should be exercised in changing any parameters.

### **5.30 IQAN ADVANCED SCREENS**

5.30.1 Adjust Menu.....	74
5.30.1 Adjust Menu.....	75
5.30.2 Measure Menu .....	76
5.30.2 Measure Menu .....	77
5.30.3 Preferences Menu.....	78
5.30.4 Info Menu.....	79
5.30.4 Info Menu.....	79
5.30.4 Info Menu, continued.....	80
5.30.5 IQAN Error Codes .....	81
5.30.5 IQAN Error Codes, continued .....	82
5.30.5 IQAN Error Codes, continued .....	83
5.30.5 IQAN Error Codes, continued .....	84

**ODB COMPANY**  
**5118 Glen Alden Drive**  
**Richmond, VA 23231**  
**800-446-9823**

# Service Section

Figure 5.30.1A



Adjust (F1)

Main Menu

## 5.30.1 Adjust Menu

### **⚠ WARNING**

Fully read and understand the entire owner's manual before operating this equipment. Follow and obey all safety guidelines. Call ODB for any questions.

The IQAN main menu can be accessed at any time by pressing the Main menu button. (Fig. 5.30.1A)

### ADJUST MENU DESCRIPTION

The Adjust menu allows the user to adjust the speed of the boom movement by changing the voltage to the valve on each axis.

### ADJUST MENU BREAKDOWN

8. Valves - shows voltage of coil (in percent)
  - a. In/Out Speed- change from 0 - 100 percent
  - b. For/Rev Speed - change from 0 - 100 percent
  - c. Up/Dwn Speed - change from 0 - 100 percent
9. Setup (LOCKED) - should only be accessed by ODB service department.

### Adjust Menu Procedure (refer to figure 3.1A):

1. Perform all the pre-starting, pre-operating checks outlined in the EOM and in this manual.
2. Turn on power to the IQAN station by pressing the power switch to the right as shown earlier in this manual.
3. Press Main Menu Key.
4. Then Press the F1-Adjust key to access the Adjust menu (Fig. 5.30.1A)
5. Press the "OK" button. (Fig. 5.30.1B).
6. Use the Navigation buttons to scroll to the setting you wish to adjust and press OK. (Fig. 5.30.1C)

Figure 5.30.1B



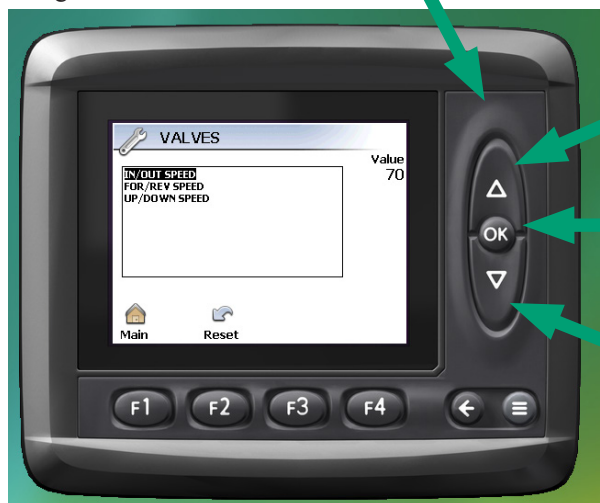
Navigation Buttons

Up

OK

Down

Figure 5.30.1C



Navigation Buttons

Up

OK

Down

# Service Section

Figure 5.30.1A

## 5.30.1 Adjust Menu

### **⚠ WARNING**

Fully read and understand the entire owner's manual before operating this equipment. Follow and obey all safety guidelines. Call ODB for any questions.

#### Adjust Menu Procedure (refer to figure 3.1A):

7. Adjust the settings by using the navigation buttons, up or down, then press OK to accept the new setting. (Fig. 5.30.1D)
8. Press "Escape" at any time to return to the previous menu. (Fig. 5.30.1D)
9. Press F2-Reset to reset the value to the factory default settings.
10. Press F1-Home to go to the main system menu.

Figure 5.30.1C

Navigation Buttons



Figure 5.30.1D

Navigation Buttons



# Service Section

Figure 5.30.1A



Adjust (F1)

Main Menu

Navigation Buttons

Figure 5.30.1B



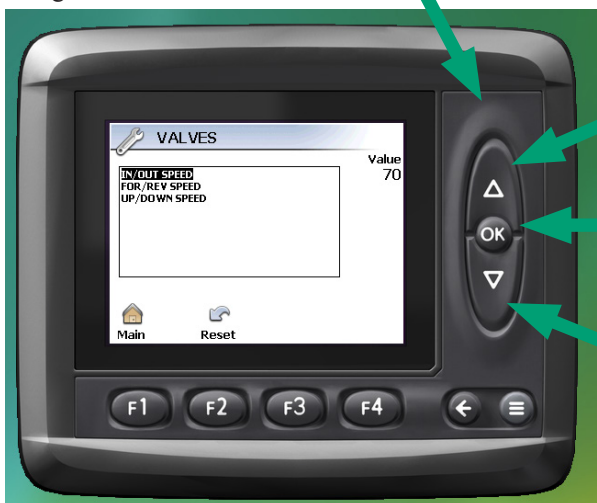
Up

OK

Down

Navigation Buttons

Figure 5.30.1C



Up

OK

Down

## 5.30.2 Measure Menu

### **WARNING**

Fully read and understand the entire owner's manual before operating this equipment. Follow and obey all safety guidelines. Call ODB for any questions.

The IQAN main menu can be accessed at any time by pressing the Main menu button. (Fig. 5.30.1A)

### MEASURE MENU DESCRIPTION

The Measure menu allows the user to view the status of all components of the IQAN system from the joystick buttons to the fuel level indicator. This menu can be instrumental in troubleshooting particular components as it will tell if a sensor or component is working properly.

### MEASURE MENU BREAKDOWN

1. Valves - shows actual amperage at coil
  - a. Boom Up/Down
  - b. Boom For/Rev
  - c. Boom In/Out
  - d. Proportional Valve
  - e. Deadman
  - f. Dump PWM
2. Joystick - shows status of joystick functions
  - a. JDC - Joystick Top PB(Pushbutton)
  - b. JDC - Joystick Boom PB(Pushbutton)
  - c. JDC - Joystick Trigger
  - d. X Axis Absolute
  - e. Y Axis Absolute
  - f. Rocker Absolute
3. Switches - shows if a switch has been tripped. False means not tripped and True means tripped.
  - a. Trap Door
  - b. Door Latch Locked
  - c. Door Latch UnLocked
  - d. Power On
  - e. Temp Switch
  - f. Oil Switch
  - g. Vac On LS
  - h. Vac Off LS

# Service Section

Figure 5.30.1A



Adjust (F1)

Main Menu

Navigation Buttons

Figure 5.30.1B



Up

OK

Down

Navigation Buttons

Figure 5.30.1C



Up

OK

Down

## 5.30.2 Measure Menu

### MAIN MENU BREAKDOWN, CONT. :

- i. Mercury Switch
- 4. Outputs - displays whether output came on when you used the button or device. For instance if you push unlock door the output should go from False to True to indicate that the system produced that output.
  - a. Unlock
  - b. Lock
  - c. Deadman
  - d. Fuel Relay
  - e. Latch Power
  - f. Starter
  - g. Aux1
  - h. Vac On
  - i. Vac Off
  - j. Aux 2
  - k. Throttle Up
  - l. Throttle Dn
  - m. ACC 3
- 5. Sensors - shows exact measurement of sensors
  - a. Water Temp
  - b. Oil Pressure
  - c. Fuel Level
  - d. Hyd Pressure

# Service Section

Figure 5.30.3A



## 5.30.3 Preferences Menu

The IQAN main menu can be accessed at any time by pressing the Main menu button. (Fig. 5.30.1A)

### PREFERENCES MENU DESCRIPTION

The Preferences menu allows the user to customize display settings as well as date and time settings.

### PREFERENCES MENU BREAKDOWN

1. Display - user screen settings (Fig. 5.30.3B)
  - a. Backlight - make lighter or darker
  - b. Screen Saver - turn on or off, interval
2. Date / Time - adjust date and time settings (Fig. 5.30.3c)
  - a. Date
  - b. Time
3. Language (English only)

### PREFERENCES MENU PROCEDURES

To change display settings:

1. Press Preferences (F3) from the System Menu (Fig. 5.30.3A)
2. Press Backlight (F2) or Screen Saver (F3). (Fig. 5.30.3.B)
3. Use Navigation Buttons to change the Backlight or Screen Saver settings. (Fig 5.30.3C)
4. Press Ok to accept the changes.

To Change Date / Time Settings:

1. Press Preferences (F3) from the System Menu (Fig. 5.30.3A)
2. Press Date (F1) or Time (F2). (Fig. 5.30.3D)
3. Use Navigation Buttons to change the Date or Time settings. (Fig. 5.30.3D)
4. Press Ok to accept the changes.

Figure 5.30.3B

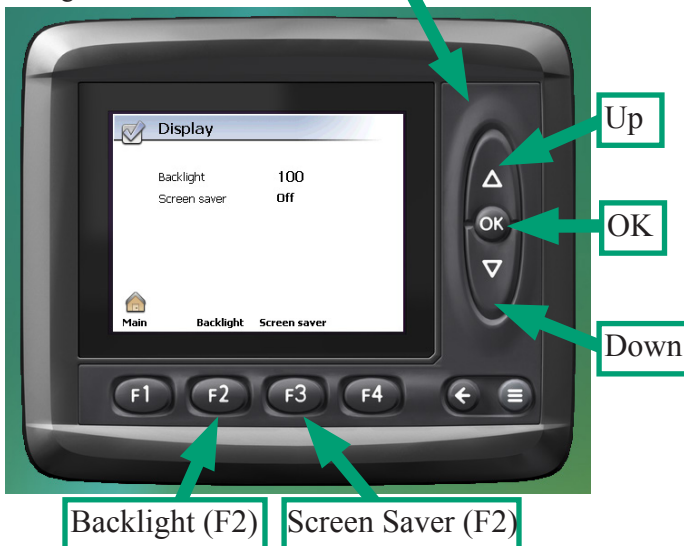


Figure 5.30.3C

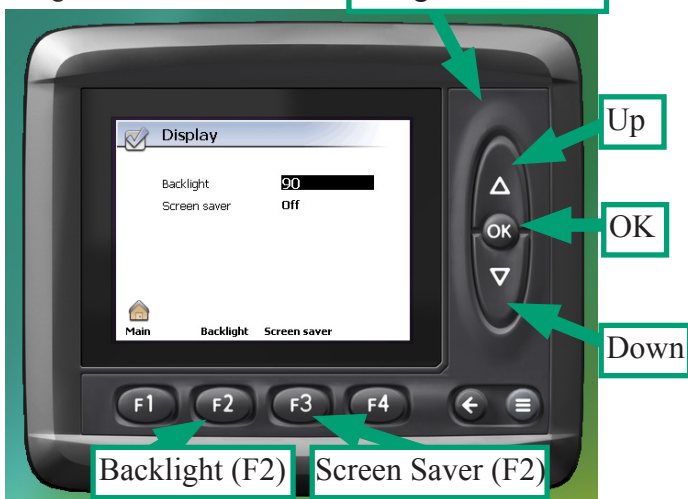
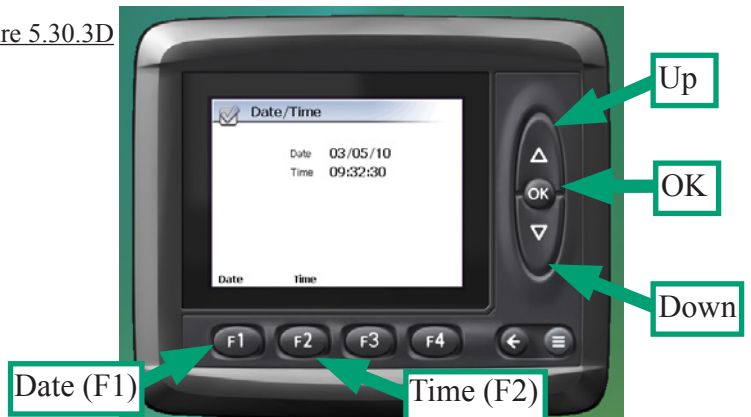


Figure 5.30.3D



# Service Section

Figure 5.30.4A

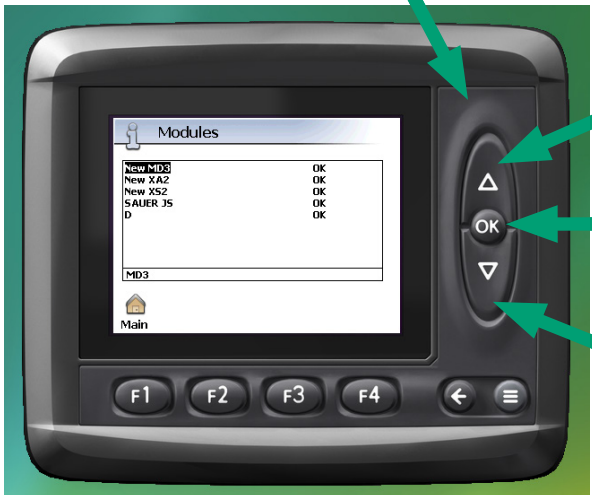


Info (F4)

Main Menu

Navigation Buttons

Figure 5.30.4B



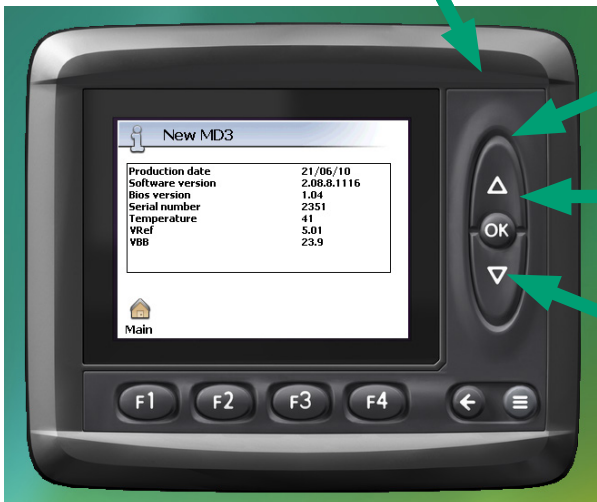
Up

OK

Down

Navigation Buttons

Figure 5.30.4C



Up

OK

Down

## 5.30.4 Info Menu

The IQAN main menu can be accessed at any time by pressing the Main menu button. (Fig. 5.30.1A)

### INFO MENU DESCRIPTION

The Info menu allows the user to view the modules status as well as the Systems and Events Logs. These screens are informational only.

### INFO MENU BREAKDOWN

1. Modules - gives technical data about the modules such as modules status, Production date, Bios version, serial number, temperature, Vref and VBB (Fig. 5.30.4C)
  - a. New MD3 -
  - b. New XA2 -
  - c. New XS2
  - d. Sauer JS -
  - e. D
2. Logs - gives technical information such as system log, events and run time. (Fig. 5.30.4c)
  - a. System Log
  - b. Events
  - c. Run Time

# Service Section

## 5.30.4 Info Menu, continued

### LOGS SCREENS

The Info menu allows the user to view the modules status as well as the Systems and Events Logs. These screens are informational only.

### LOGS MENU BREAKDOWN

1. System Log - logs for application changes, system changes or engine related events. (Fig. 5.30.4D) You can change the sort order (F2), toggle between date and time (F3) and display Line/Page (F4).
2. Events - logs external switch events such as limit switch or deadman switches. Not anything with the engine. (Fig. 5.30.4E). You can change the sort order (F2), toggle between date and time (F3) and display Line/Page (F4).
3. Run Time - shows grand total of hours the unit has run. (Fig. 5.30.4F)

Figure 5.30.4D

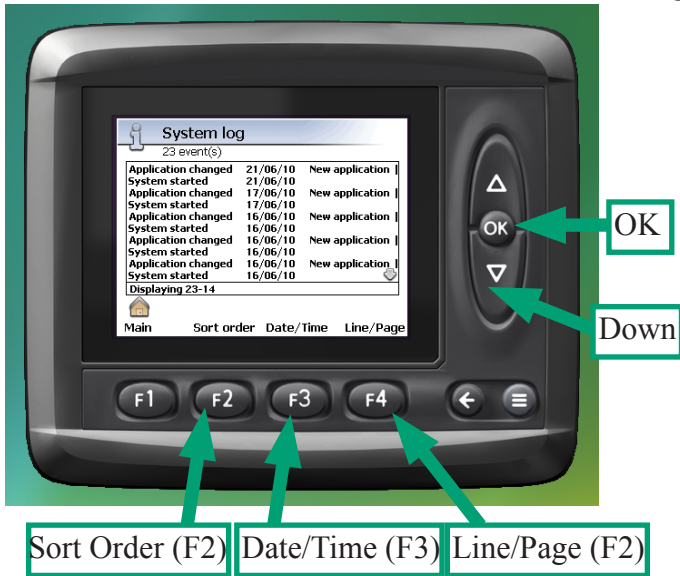


Figure 5.30.4E

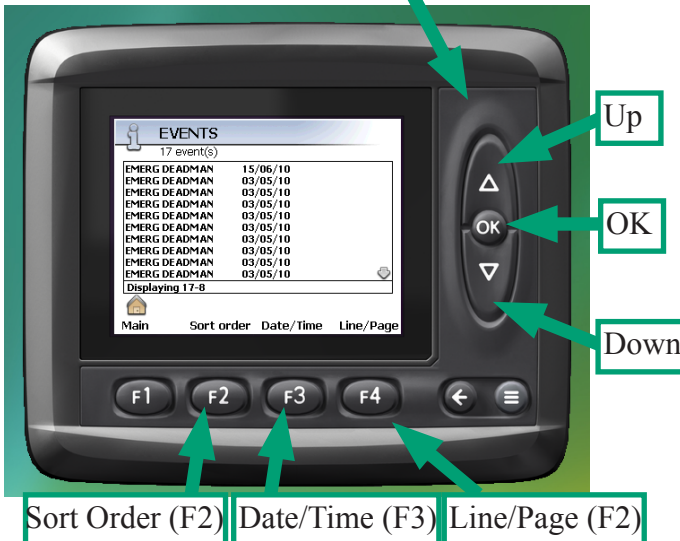


Figure 5.30.4F





# Service Section

## 5.30.5 IQAN Error Codes

Figure 5.30.5A - MD3 Screen



### **⚠ WARNING**

Fully read and understand the entire owner's manual before operating this equipment. Follow and obey all safety guidelines. Call ODB for any questions.

### **⚠ WARNING**

An error message could indicate that a hazardous condition exists. If precautions are not taken, this could result in death, serious injury or major property damage.

The IQAN system has many ways to help diagnose issues with the system.

The first way is to look at the IQAN system screen (MD3) for any error messages. The basic error messages are displayed in Fig. 5.30.5A. The error that has occurred will be indicated by the red button being illuminated.

The error must be cleared for this screen to go away.

**CONTINUED** =====>

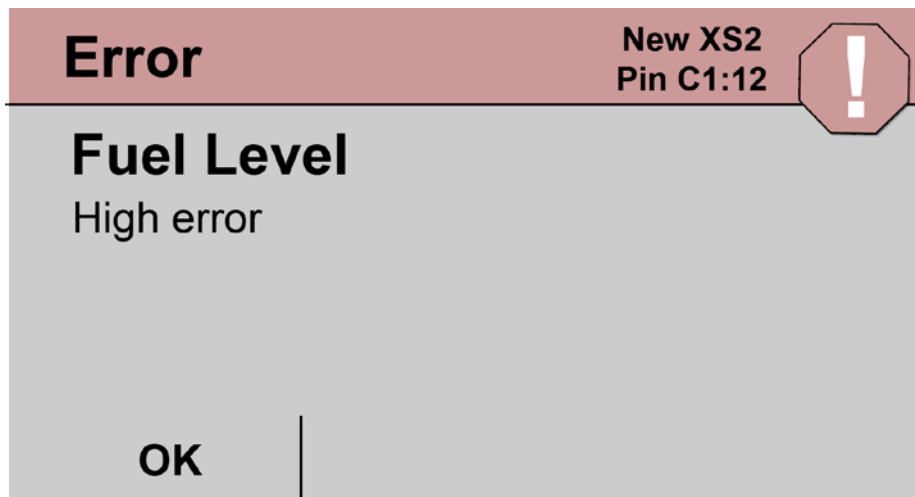
# Service Section

## 5.30.5 IQAN Error Codes, continued

### **WARNING**

Fully read and understand the entire owner's manual before operating this equipment. Follow and obey all safety guidelines. Call ODB for any questions.

Figure 5.30.5D



The IQAN MD3 Screen will also display popup Error messages (Fig. 5.30.5D), similar to the above, when an error has occurred. Below are the most common error messages and the possible cause or corrective action needed.

### Screen (MD3) Error Messages

ERROR	POSSIBLE CAUSE / CORRECTIVE ACTION
New MD3 set date & time	Preferences date and time
Hyd Oil Temp - Low Error	Hydraulic oil temperature sensor issue
Hyd Pressure - Low Error	Oil pressure sensor issue
Water temp low	Water temperature sensor issue
Oil temp - Low Error	Oil temperature sensor issue
Now power at all	Check communication plug at side rail
New XS2 - no contact or New XA2 - no contact	Check plug on engine sheetmetal and/or module plug
Sauer JS - no contact	Joystick disconnected
Fuel level - High Error	Check plug on side rail or sender
Boom saturated	check coils on valve body
Canbus - B -	Check engine side rail plug

\* If any additional errors are seen that are not on this list, check the pin# on the message at module.

# Service Section

## 5.30.5 IQAN Error Codes, continued



**Fully read and understand the entire owner's manual before operating this equipment. Follow and obey all safety guidelines. An error message could indicate that a hazardous condition exists. If precautions are not taken, this could result in death, serious injury or major property damage. Call ODB for any questions.**

### Failure Modes

The following tables includes information about the different possible failures that could occur for each module subsystem. In most cases when an error is detected, a message will be presented on the mastery display. In some cases, the master will turn off or at least shut down the outputs, to increase safety.

### Failure Modes for CAN Interface:

Failure mode		Effect
1	CAN-H to -BAT	No CAN communication. All output turned off.
2	CAN-L to -BAT	No CAN communication. All output turned off.
3	CAN-H to +BAT	No CAN communication. All output turned off.
4	CAN-L to +BAT	No CAN communication. All output turned off.
5	CAN-L open circuit	No CAN communication. All output turned off.
6	CAN-H open circuit	No CAN communication. All output turned off.
7	CAN-L to CAN-H	No CAN communication. All output turned off.
8	CAN-termination failure, termination on	No effect
9	CAN-termination failure, termination off	Dependent on CAN size and number of CAN nodes.

### Failure modes for VREF

Failure mode		Effect
1	+VREF Open	VIN out of range, will create a VIN error => VIN=Predefined error value.
2	-VREF Open	VIN out of range, will create a VIN error => VIN=Predefined error value.
3	+VREF Short-circuit to -VREF	VREF error => VIN out of range, will create a VIN error => VIN=Predefined error value.
4	+VREF Short-circuited to +BAT	VREF error => VIN out of range, will create a VIN error => VIN=Predefined error value.
5	+VREF Short-circuited to -BAT	VREF error => VIN out of range, will create a VIN error => VIN=Predefined error value.
6	-VREF Short-circuited to +BAT	External fuse (if <7.5A) on +BAT blows.
7	-VREF Short-circuited to -BAT	Not detected.

### Failure modes for VIN

Failure mode		Effect
1	VIN Open	VIN out of range, will create a VIN error => VIN=Predefined error value <sup>1</sup>
2	VIN Short-circuited to +BAT	VIN out of range, will create a VIN error => VIN=Predefined error value <sup>1</sup>
3	VIN Short-circuited to -BAT	VIN out of range, will create a VIN error => VIN=Predefined error value <sup>1</sup>

1. Measure is controlled by CAN master and application as a result from the CAN error message. Turning outputs off is controlled by CAN master unit and therefore delayed maximum 2 bus cycles.

### Failure modes for DIN

Failure mode		Effect
1	DIN Open	No effect on module, not detected
2	DIN Short-circuited to +BAT	No effect on module, not detected
3	DIN Short-circuited to -BAT	No effect on module, not detected

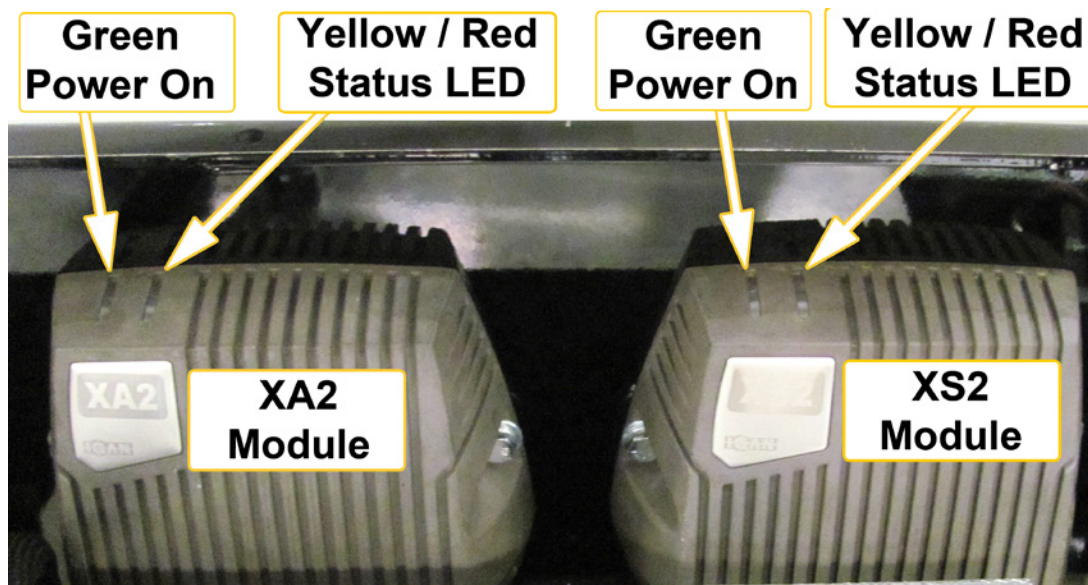
# Service Section

## 5.30.5 IQAN Error Codes, continued

### **⚠ WARNING**

Fully read and understand the entire owner's manual before operating this equipment. Follow and obey all safety guidelines. Call ODB for any questions.

Figure 5.30.5C



The XA2 and XS2 modules are flexible expansion modules designed for controlling hydraulic systems in vehicles and machinery.

The green LED indicates power on.

The yellow blinking LED on the top of the module indicates normal status. If there is an error detected, the IQAN module will indicate error status through the RED blinking LED. This gives an immediate diagnosis as to the nature of the error that has occurred. (Fig. 5.30.5C)

### XA2 and XS2 Error Codes

ERROR	# RED FLASHES	# YELLOW FLASHES	POSSIBLE CAUSE
None	0	long flashes	normal operation
On Screen	1	1	on screen
On Screen	2	1	on screen
CAN error	3	1	lost communication
Address Error	3	2	Address tag error
Memory error	4	1	Lost memory on MD3(screen)
Fatal Error	8	0	Possible dead battery in the screen



## **5.40 WIRING DIAGRAMS**

### **5.40 WIRING DIAGRAMS**

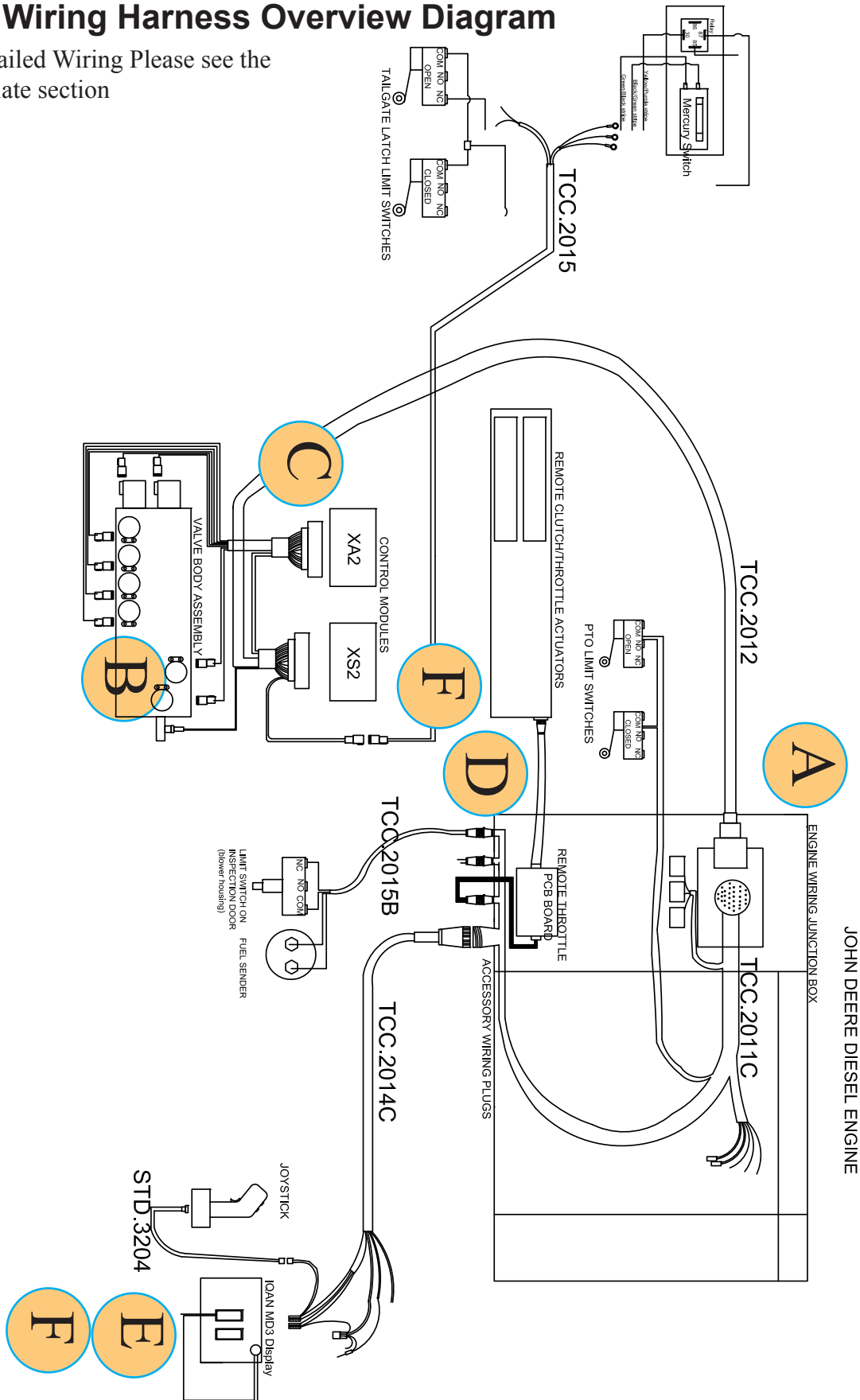
5.40.1 Wiring Harness Overview Diagram.....	86
5.40.2 Engine Wiring Harness Diagram .....	87
5.40.3 Valve Body Wiring Harness Diagram.....	88
5.40.4 XA2 and XS2 Module Wiring Harness Diagram .....	89
5.40.5 Engine Side Rail Wiring Harness Diagram .....	90
5.40.6 IQAN MD3 Display Wiring Harness Diagram.....	91
5.40.7 IQAN E-Stop,Relay,Joystick & Door Lock Diagrams .....	92
5.40.8 IQAN Power Switch and E-Stop Wiring Diagrams.....	93
5.40.9 Hook Lift Truck Harness to Screen Diagrams.....	94
5.40.10 Hook Lift Truck Harness Wiring .....	95

**ODB COMPANY**  
**5118 Glen Alden Drive**  
**Richmond, VA 23231**  
**800-446-9823**

# Service Section

## 5.40.1 Wiring Harness Overview Diagram

For detailed Wiring Please see the appropriate section



1012213

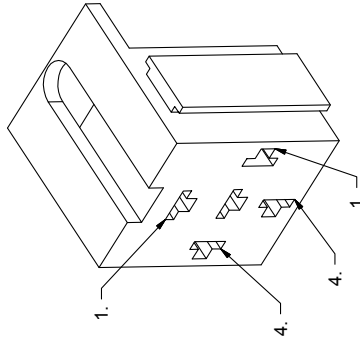
# Service Section

## 5.40.2 Engine Wiring Harness Diagram

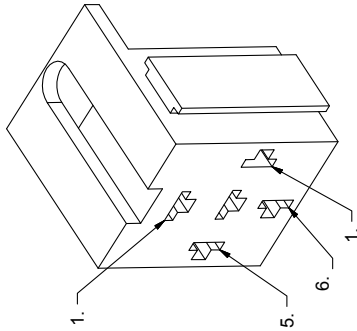


### ENGINE RELAYS

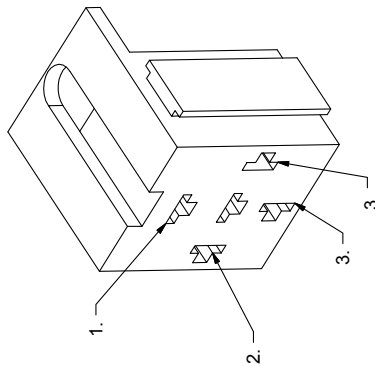
#### OIL SWITCH RELAY



#### WATER TEMP SWITCH RELAY



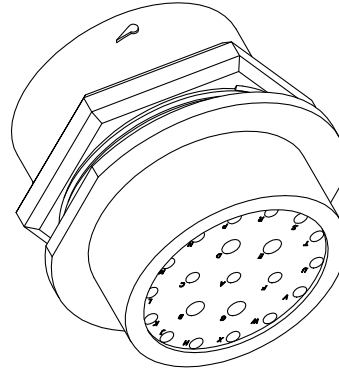
#### STARTER RELAY



- 1. WHITE/GREEN
- 2. BLACK
- 3. RED/BLUE
- 4. RED/BLACK
- 5. LT BLUE/BLACK
- 6. BLUE/BLACK

### ENGINE WIRING HARNESS DIAGRAM

- 1. GREEN/RED
  - 2. RED/BLUE
  - 3. ORANGE
  - 4. BLACK
  - 5. PURPLE
  - 6. WHITE/RED
  - 7. WHITE
  - 8. TAN/BLACK
  - 9. TAN
  - 10. PINK
  - 11. BLUE
  - 12. BLUE/BLACK
  - 13. RED/BLACK
  - 14. YELLOW/RED
  - 15. BLACK/ORANGE
  - 16. YELLOW/GREEN
  - 17. GREEN/YELLOW
  - 18. YELLOW/BLUE
  - 19. BLUE/YELLOW
  - 20. GREEN
  - 21. BROWN
  - 22. WHITE/GREEN
  - 23. WHITE/ORANGE
  - 24. WHITE/BLUE
  - 25. EMPTY
  - 26. BLUE/GREEN
  - 27. GREEN
  - 28. YELLOW
- 12V FROM ROCKER SWITCH
  - STARTER
  - FUEL COIL
  - GROUND
  - ALTERNATOR ENERGIZE
  - OIL SENDER
  - TACH
  - EMERGENCY STOP
  - TRAP DOOR
  - FUEL SENDER
  - TEMP SENDER(WATER)
  - TEMP SWITCH
  - OIL SWITCH
  - 5V +
  - 5V -
  - CLUTCH ENGAGE
  - CLUTCH DISENGAGE
  - THROTTLE FAST
  - THROTTLE SLOW
  - DISENGAGE LIMIT SWITCH PTO
  - ENAGAGE LIMIT SWITCH PTO
  - ACCESSORY 1(TRAP DOOR, PTO LIMIT SWITCH & ENGINE RELAYS)
  - ACCESSORY 2(SPARE)
  - ACCESSORY 3(REMOTE CLUTCH & THROTTLE RELAY BOX)
  - EMPTY
  - SCREEN LATCH POWER(AUTO SHUT DOWN)
  - CAN BUS(TWISTED)
  - CAN BUS(TWISTED)



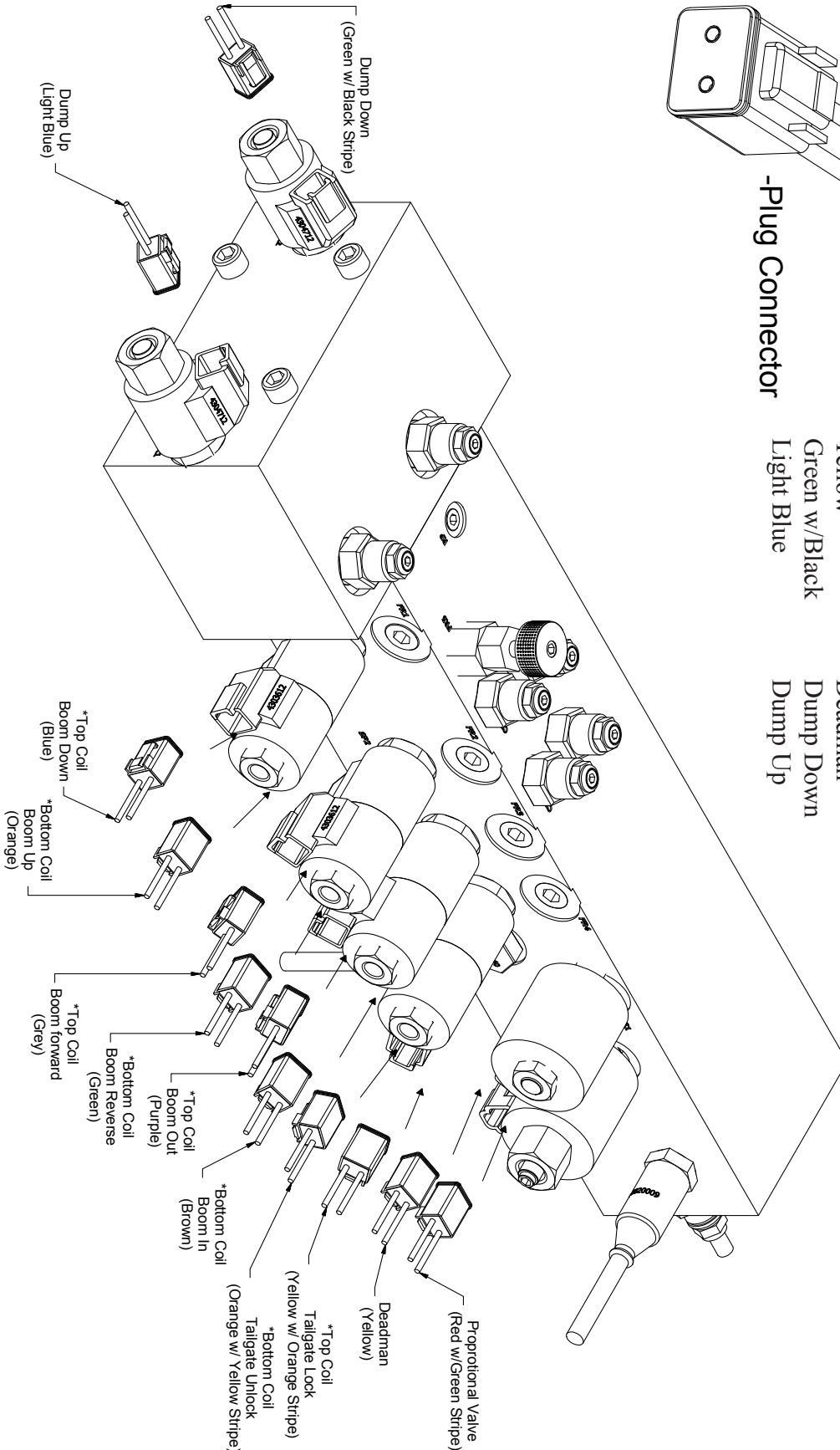
012213

# Service Section



## 5.40.3 Valve Body Wiring Harness Diagram

\* Every Connector has 2 wires, one is a (color), the other is Black



-Plug Connector

- |                  |                    |
|------------------|--------------------|
| Orange           | Boom Up            |
| Blue             | Boom Down          |
| Green            | Boom Reverse       |
| Grey             | Boom Forward       |
| Brown            | Boom In            |
| Purple           | Boom Out           |
| Orange w/ Yellow | Tailgate Unlock    |
| Yellow w/ Orange | Tailgate Lock      |
| Red w/ Green     | Proportional Valve |
| Yellow           | Deadman            |
| Green w/ Black   | Dump Down          |
| Light Blue       | Dump Up            |

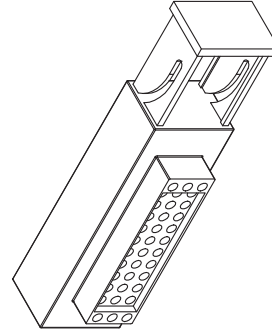
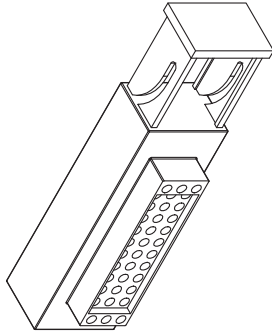
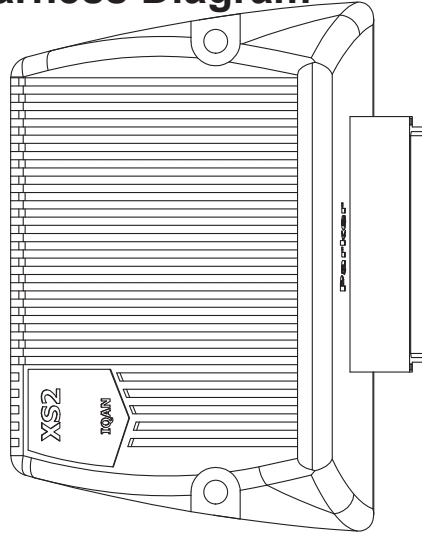
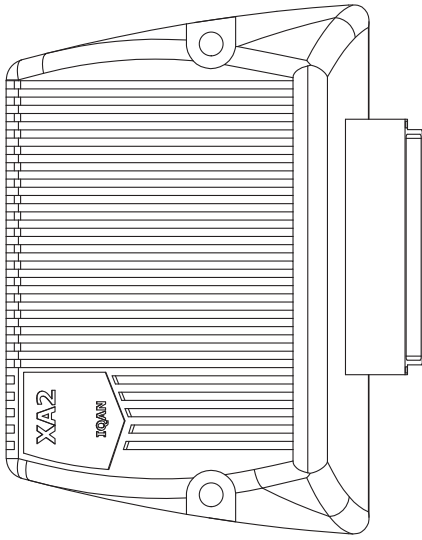
### Wiring Diagram

012213



# Service Section

## 5.40.4 XA2 and XS2 Module Wiring Harness Diagram



### XA2 MODULE WIRING DIAGRAM

1.	BLACK	ADDRESS TAG (N)
2.	BLACK	NEG UP/DOWN
3.	BLACK	NEG FORWARD/REVERSE
4.	BLACK	NEG IN/OUT
5.	BLACK	NEG DUMP UP/DOWN
6.	BLACK	NEG PROPORTIONAL VALVE
7.	YELLOW	DEADMAN(SV1)
14.	BLACK	ADDRESS TAG (I)
15.	BLACK	NEG DOOR LOCK & DEADMAN
16.	ORANGE	BOOM UP
17.	GREY	BOOM FORWARD
18.	BROWN	BOOM IN
19.	LT BLUE	DUMP UP
20.	RED/GREEN	PROPORTIONAL VALVE
22.	ORANGE/YELLOW	DOOR UNLOCK
23.	YELLOW/ORANGE	DOOR LOCK
27.	GREEN	CAN BUS (TWISTED)
28.	GREEN/RED	12V FROM POWER ROCKER SWITCH
30.	BLUE	BOOM DOWN
31.	GREEN	BOOM REVERSE
32.	PURPLE	BOOM OUT
33.	GREEN/BLACK	DUMP DOWN
38.	WHITE	TACH SIGNAL
41.	YELLOW	CAN BUS (TWISTED)

### XS2 MODULE WIRING DIAGRAM

1.	BLACK	ADDRESS TAG (T)
2.	YELLOW/GREEN	CLUTCH ENGAGE
3.	GREEN/YELLOW	CLUTCH DISENGAGE
4.	WHITE/YELLOW	ACCESSORY 3(REMOTE CLUTCH & THROTTLE RELAY BOX)
5.	YELLOW/BLUE	THROTTLE FAST
6.	BLUE/YELLOW	THROTTLE SLOW
7.	WHITE/GREEN	ACCESSORY 1(TRAP DOOR, PTO LIMIT SWITCH & ENGINE RELAYS)
8.	ORANGE	FUEL COIL
9.	BLUE/GREEN	SCREEN LATCH POWER(AUTO SHUT DOWN)
10.	BLUE	OIL SENDER
11.	WHITE/RED	TEMP SENDER
12.	PINK	FUEL SENDER
13.	GREEN/BLUE	HYD PRESSURE SENSOR
14.	BLACK	ADDRESS TAG (O)
15.	BLACK	GROUND
16.	TAN	TRAP DOOR
18.	LT BLUE/BLACK	DOOR UNLOCK LIMIT SWITCH
19.	BLUE/BLACK	TEMP SWITCH
20.	TAN/BLACK	EMERGENCY STOP SIGNAL
21.	GREEN	PTO DISENGAGE LIMIT SWITCH
22.	PURPLE	ALTERNATOR ENERGIZE
23.	RED/BLUE	STARTER
25.	BLACK/BLUE	HYD TEMP SENSOR
26.	GREEN	CAN BUS (TWISTED) TO MD3 SCREEN
27.	GREEN	CAN BUS (TWISTED) TO XA2 MODULE
28.	GREEN/RED	12V FROM SWITCH
29.	BLACK/ORANGE	5V NEG
31.	LT BLUE/WHITE	DOOR LOCK LIMIT SWITCH
33.	RED/BLACK	OIL SWITCH
34.	BROWN	ENGAGE LIMIT SWITCH PTO
35.	BLACK/GREEN	MERCURY SWITCH
36.	WHITE/ORANGE	ACCESSORY 2(SPARE)
37.	WHITE/BLACK	ACCESSORY 4(DOOR LOCK LIMIT SWITCH & MERCURY SWITCH)
40.	YELLOW	CAN BUS (TWISTED) TO MD3 SCREEN
41.	YELLOW	CAN BUS (TWISTED) TO XA2 MODULE
42.	YELLOW/RED	5V POSITIVE

# Service Section



## 5.40.5 Engine Side Rail Wiring Harness Diagram

### ENGINE SIDE RAIL WIRING DIAGRAM

#### 9 PIN COMMUNICATION PLUG

- |                 |                                    |
|-----------------|------------------------------------|
| 1. RED          | 12V UNSWITCHED FROM BATTERY        |
| 2. GREEN/RED    | 12V FROM SWITCH                    |
| 3. BLUE/GREEN   | SCREEN LATCH POWER(AUTO SHUT DOWN) |
| 4. ORANGE       | FUEL COIL(TO E-STOP)               |
| 5. ORANGE/BLACK | FUEL COIL(FROM E-STOP)             |
| 6. TAN/BLACK    | EMERGENCY STOP SIGNAL              |
| 7. YELLOW       | CAN BUS(TWISTED)                   |
| 8. GREEN        | CAN BUS(TWISTED)                   |
| 9. BLACK        | GROUND                             |

#### 9 PIN AUX PLUG

- |                 |                                       |
|-----------------|---------------------------------------|
| 1. WHITE/BLUE   | ACCESSORY 3(REMOTE CLUTCH & THROTTLE) |
| 2. BLACK        | GROUND                                |
| 3. YELLOW/GREEN | CLUTCH ENGAGE                         |
| 4. GREEN/YELLOW | CLUTCH DISENGAGE                      |
| 5. EMPTY        | EMPTY                                 |
| 6. EMPTY        | EMPTY                                 |
| 7. YELLOW/BLUE  | THROTTLE FAST                         |
| 8. BLUE/YELLOW  | THROTTLE SLOW                         |
| 9. EMPTY        | EMPTY                                 |

#### 7 PIN AUX PLUG

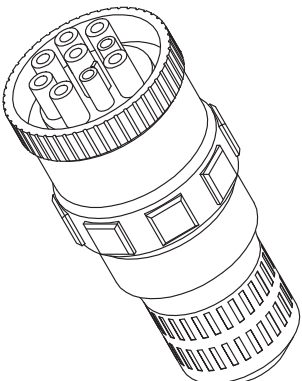
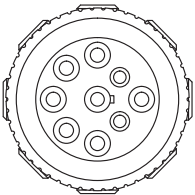
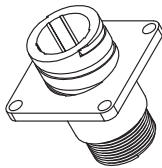
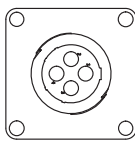
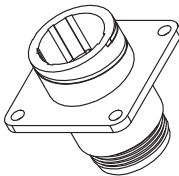
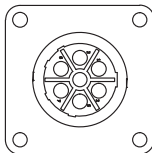
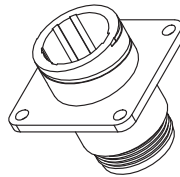
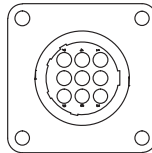
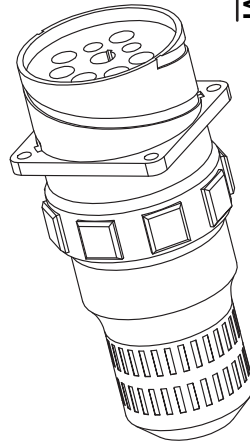
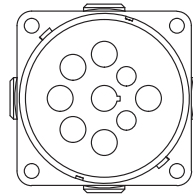
- |                 |                    |
|-----------------|--------------------|
| 1. WHITE/ORANGE | ACCESSORY 2(SPARE) |
| 2. BLACK        | GROUND             |
| 3. WHITE ORANGE | ACCESSORY 2(SPARE) |
| 4. BLACK        | GROUND             |
| 5. EMPTY        | EMPTY              |
| 6. EMPTY        | EMPTY              |
| 7. EMPTY        | EMPTY              |

#### 4 PIN AUX PLUG

- |                 |  |
|-----------------|--|
| 1. PINK         | FUEL SENDER SIGNAL                                       |
| 2. BLACK/ORANGE | FUEL SENDER - 5V   |
| 3. TAN          | TRAP DOOR  |
| 4. WHITE/GREEN  | ACCESSORY 1(TRAP DOOR, PTO LIMIT SWITCH & ENGINE RELAYS) |

#### IQAN SCREEN COMMUNICATION HARNESS PLUG

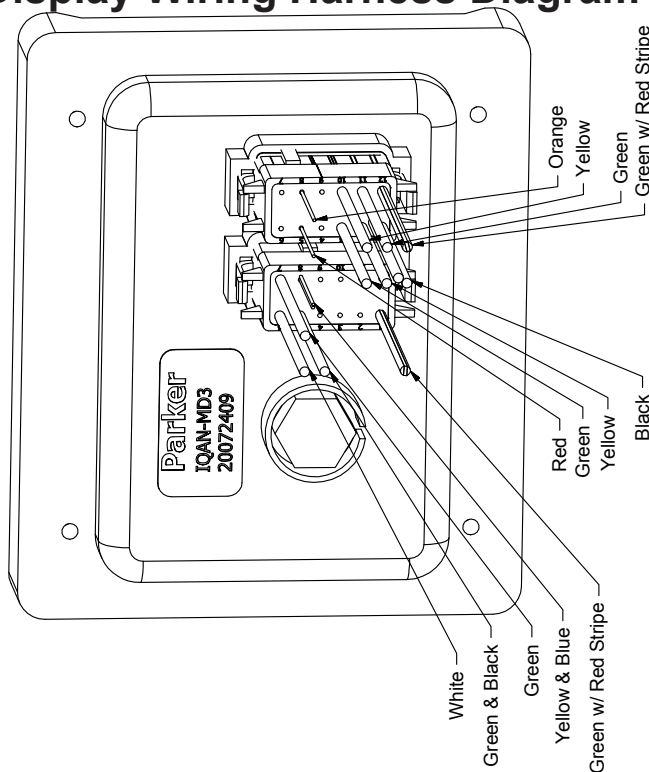
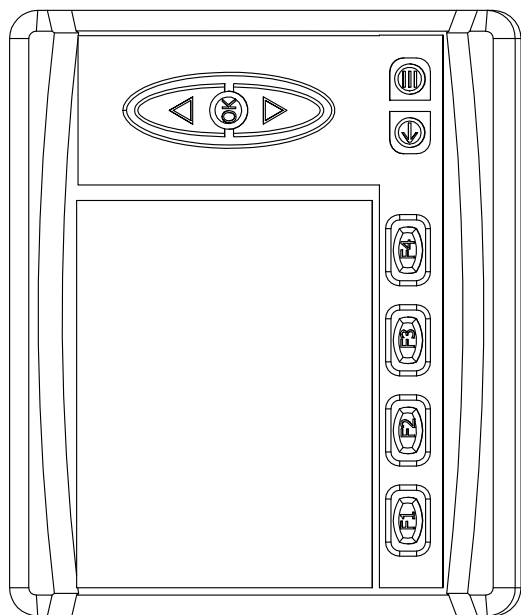
- |                    |                            |
|--------------------|----------------------------|
| A. RED             | 12V BATTERY                |
| B. GREEN W/ RED    | 12V FROM SWITCH            |
| C. BLUE W/ GREEN   | SCREEN LATCH POWER         |
| D. ORANGE          | FUEL SOLENOID(TO E-STOP)   |
| E. ORANGE W/ BLACK | FUEL SOLENOID(FROM E-STOP) |
| F. TAN W/ BLACK    | E-STOP SIGNAL OUT          |
| G. YELLOW          | CAN BUS                    |
| H. GREEN           | CAN BUS                    |
| I. YELLOW          | GROUND                     |
| J. BLACK           | GROUND                     |



012213

# Service Section

## 5.40.6 IQAN MD3 Display Wiring Harness Diagram

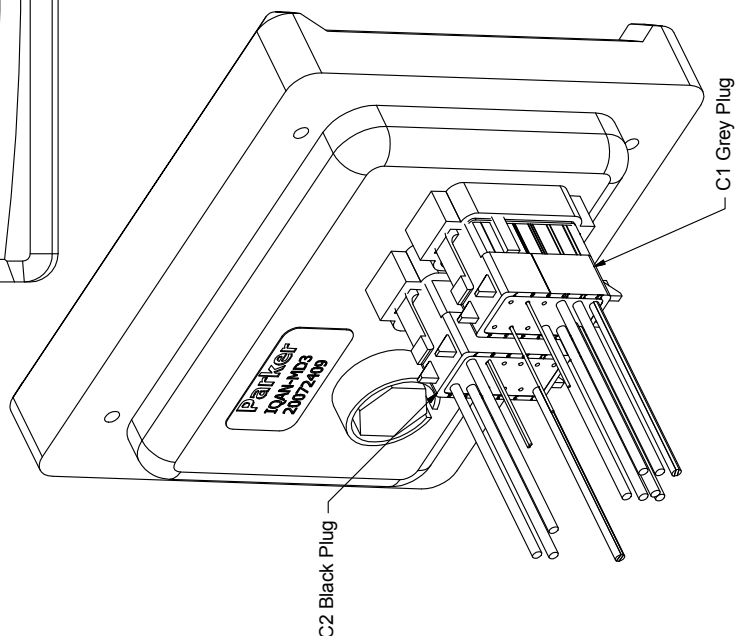


### C1 Grey Plug

1. Black - Ground
2. Yellow - Can Bus XS2 Module
3. Green - Can Bus Joystick
4. N/A
5. Red - Sub D9 Connector
6. N/A
7. N/A
8. Orange - Sub D9 Connector
9. N/A
10. Yellow - Can Bus Joystick
11. Green - Can Bus XS2 Module
12. Green w/ Red Stripe - 12v Switch

### C2 Black Plug

1. Green w/ Red Strip - 12v Switch before Diode
2. N/A
3. N/A
4. N/A
5. Green & Black - USB Communication Cable (Black) & Sub D9 (Green)
6. White - USB Communication Cable
7. Green - USB Communication Cable
8. Yellow & Blue Sub D9 Connector (Both)
9. N/A
10. N/A
11. N/A
12. N/A



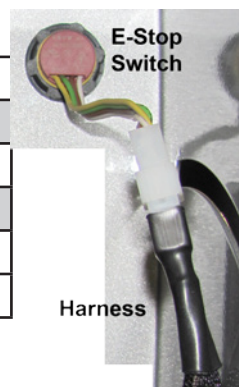
# Service Section

## 5.40.7 IQAN E-Stop, Relay, Joystick & Door Lock Diagrams



### E-Stop

PIN #	SWITCH	HARNESS	USAGE
1	White	Orange	Fuel Solenoid
2	Orange	Orange	Fuel Solenoid
3	Yellow	Orang/Black	E-Stop Out Signal
4	Green	Green/Red	12V + from Switch
<b>4 pin conn.</b>	<b>Female Pins</b>	<b>Male Pins</b>	



### Auto Shutdown Relay

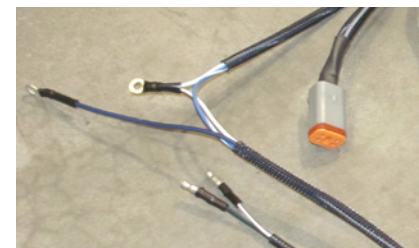
PIN #		HARNESS	USAGE
30		Orange	Fuel Solenoid
85		Orange	Fuel Solenoid
86		Orang/Black	E-Stop Out Signal
87		Green/Red	12V + from Switch

### Eaton Joystick

PIN #	FROM JOY	TO SCREEN	USAGE
1	Red	Green/Red	12V Switch
2	Green	Black	Ground
3	Yellow	Green	Can Bus (twisted) 150 OHM Resistor
4	Blue	Yellow	Can Bus (twisted) 150 OHM Resistor
<b>4 pin conn.</b>	<b>Male Pins</b>	<b>Female Pins</b>	

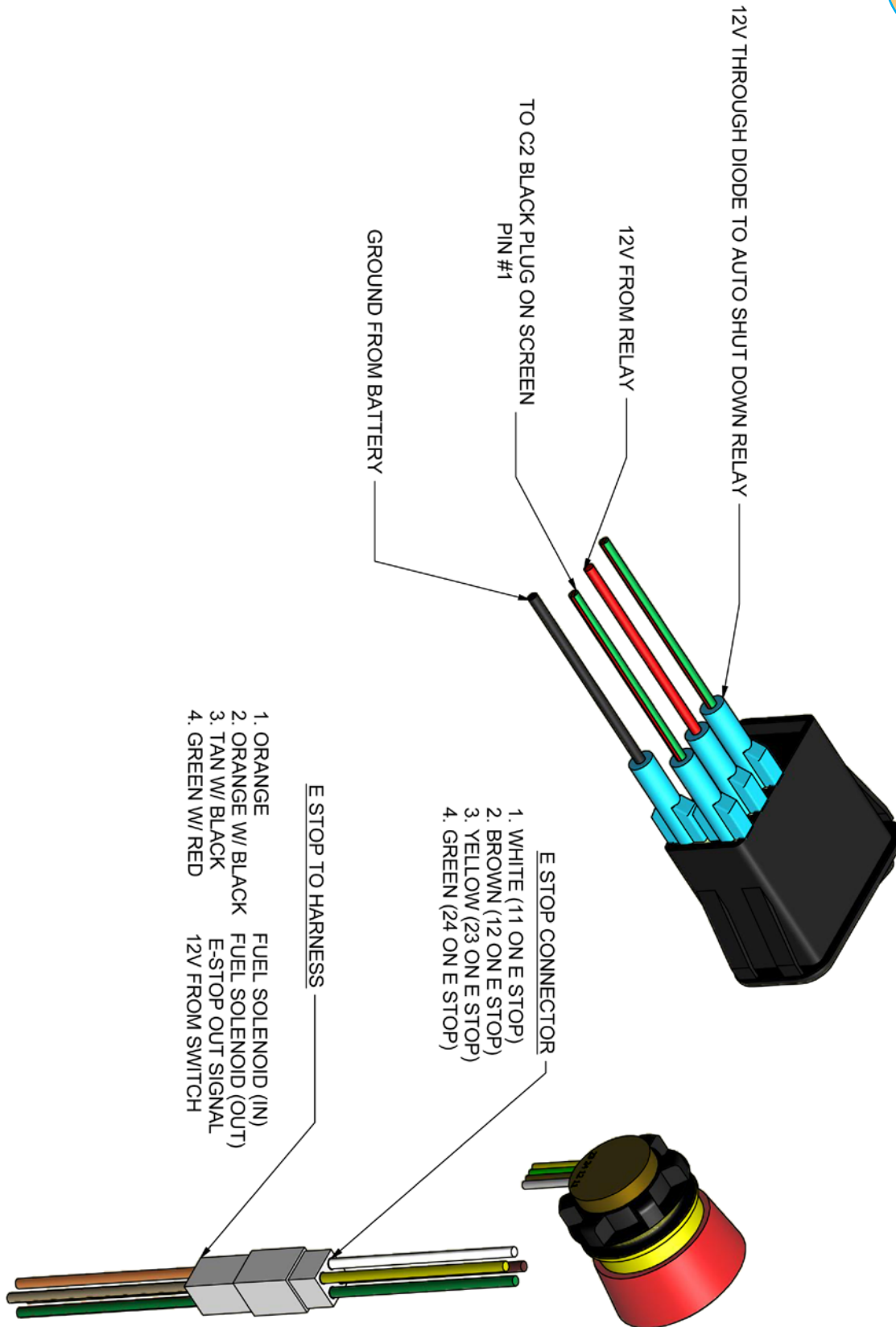
### Door Locks and Mercury Switch

PIN #		WIRE	USAGE
1		White/Black	Accessory 4 (Door Lock Limit Switch&Mercury Switch)
2		Lt Blue/White	Door Lock Limit Switch
3		Lt Blue/Black	Door Lock Limit Switch
4		Black/Green	Mercury Switch



# Service Section

## 5.40.8 IQAN Power Switch and E-Stop Wiring Diagrams



# Service Section

## 5.40.9 Hook Lift Truck Harness and Jumper

- A. GREEN W/ RED
- B. BLUE W/ GREEN
- C. ORANGE
- D. ORANGE W/ BLACK
- E. TAN W/ BLACK
- F. YELLOW
- G. GREEN
- H. GROUND

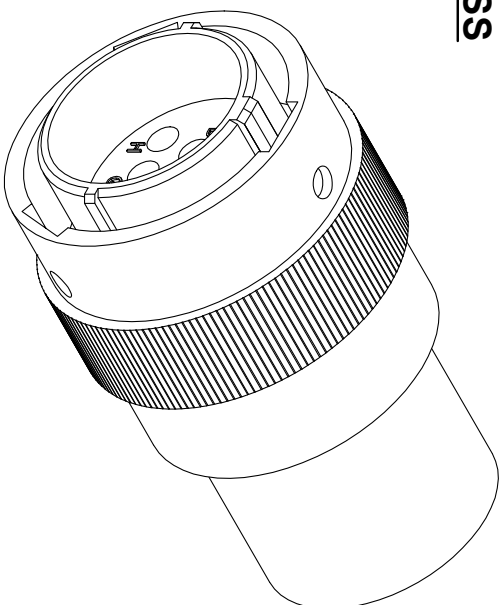
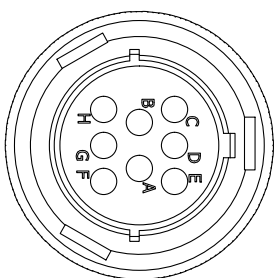
- 12V FROM SWITCH
- SCREEN LATCH POWER
- FUEL SOLENOID (TO E-STOP)
- FUEL COIL (FROM E-STOP)
- E-STOP SIGNAL OUT
- CAN BUS
- CAN BUS
- CAN BUS
- GROUND

### HOOK LIFT TRUCK JUMPER HARNESS

**PLUG:** HD36.18.8PE.059  
**PINS:** 0460.204.12141 (There are 8 pins)

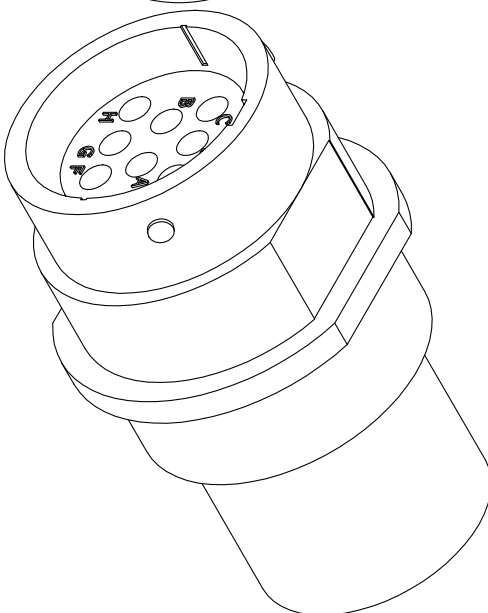
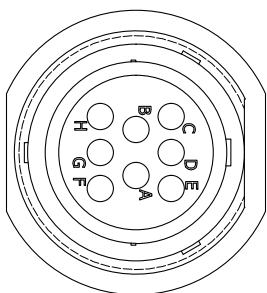
- A. GREEN W/ RED
- B. BLUE W/ GREEN
- C. ORANGE
- D. ORANGE W/ BLACK
- E. TAN W/ BLACK
- F. YELLOW
- G. GREEN
- H. GROUND

- 12V FROM SWITCH
- SCREEN LATCH POWER
- FUEL SOLENOID (TO E-STOP)
- FUEL COIL (FROM E-STOP)
- E-STOP SIGNAL OUT
- CAN BUS
- CAN BUS
- CAN BUS
- GROUND



**PLUG:** HD34.18.8SE.059  
**PINS:** 0462-203-12141 (There are 8 pins)

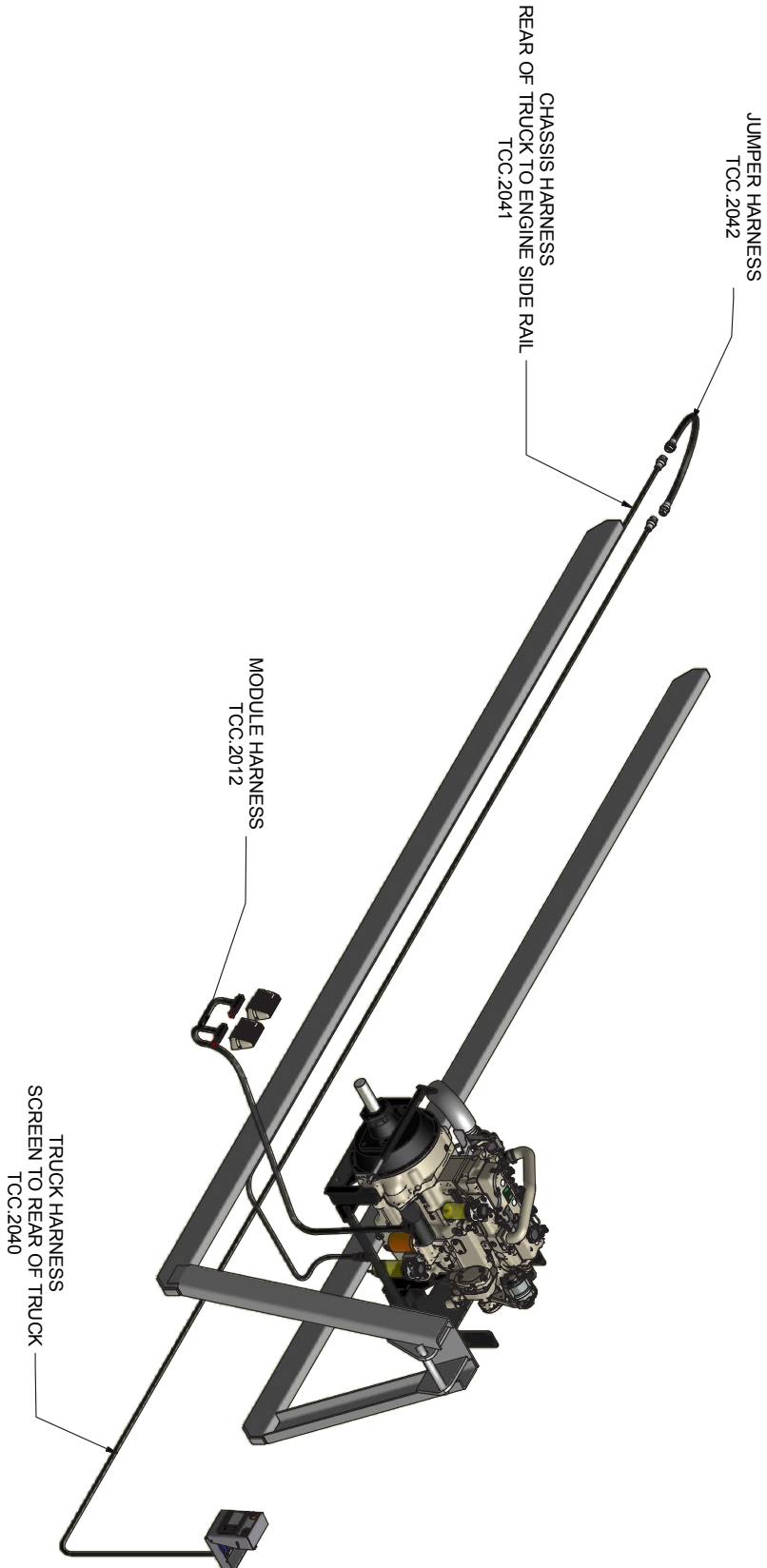
### HOOK LIFT TRUCK HARNESS TO SCREEN PLUG (PLUG LOCATED AT REAR OF TRUCK FOR CONNECTION TO LEAF LOADER HARNESS)



# Service Section

## 5.40.10 Hook Lift Truck Harness Wiring

### STANDARD HOOK LIFT WIRING 2013



2/13



# **PARTS BREAKDOWN SECTIONS**

- 6.0 Engine Group**
- 7.0 Clutch Group**
- 8.0 Blower Housing Group**
- 9.0 Hydraulic Group**
- 10.0 Chassis and Hopper Group**
- 11.0 Hose Boom Group**

**PARTS BREAKDOWN SECTIONS**

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
**800-446-9823**





**6-0**

**6.0 ENGINE GROUP**

**6.0 ENGINE GROUP**

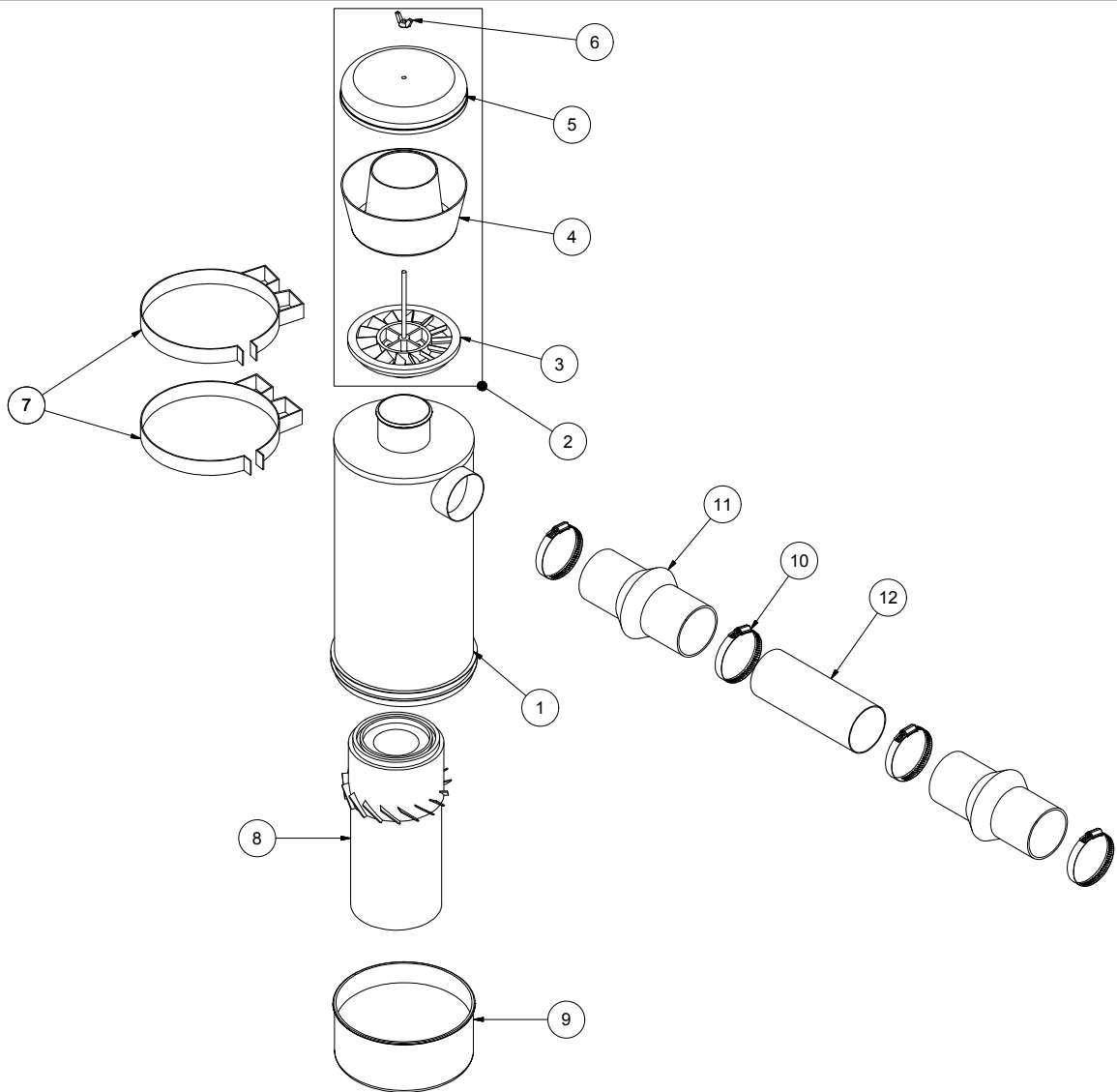
6-0 .....	97
6.1 Air Cleaner Group.....	98
6.2 Sheet Metal Group, SCL 3X.....	99
6.3 Engine Mount Group .....	100
6.4 Muffler (Exhaust) Assembly.....	101
6.5 Radiator Assembly Group.....	102
6.6 Engine Senders / Switch Group .....	103
6.7 Battery Group.....	104
6.8 Engine Miscellaneous Parts Group.....	105
6.9 John Deere Common Engine Parts Group.....	106
6.10 Remote Clutch / Throttle Circuit Board Assembly.....	107
6.11 Remote Clutch and Remote Throttle Assembly.....	108
6.12 Chaffe Eliminator Assembly, hinged .....	109

**ENGINE GROUP**

**ODB COMPANY**  
**5118 Glen Alden Drive**  
**Richmond, VA 23231**  
**800-446-9823**

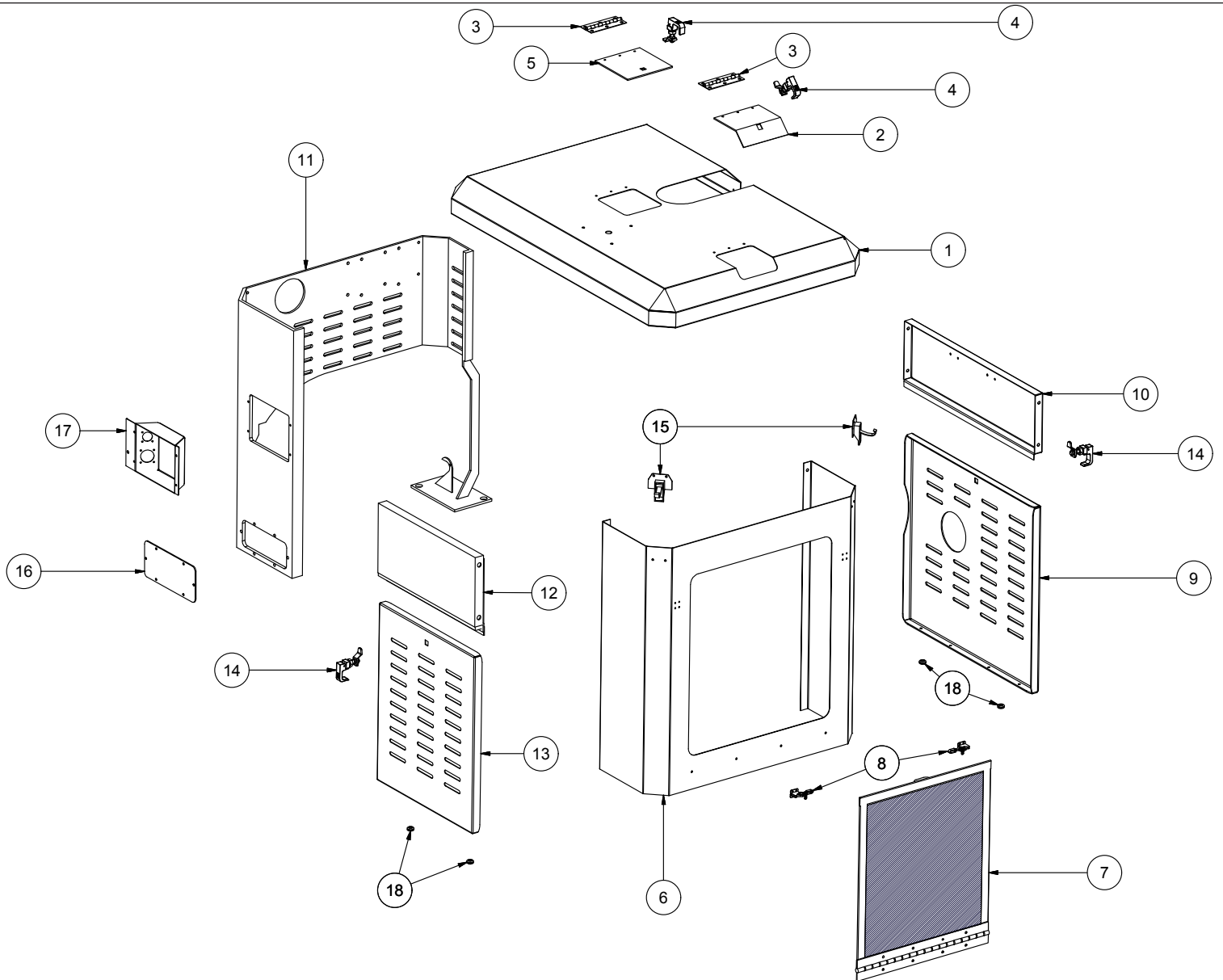
# 6.1 Air Cleaner Group

Hooklift Units Only



ITEM #	PART NUMBER	DESCRIPTION
1	UU-A080022	Air Cleaner Assembly, 8 inch
2	UU-H001249	Pre-Cleaner
3	... N/A	... Pre-Cleaner Base
4	... P020648	... Plastic Bowl
5	... P020227	... Cover
6	...	... Wing Nut
7	UU-P004307	Mounting Bands (to sheet metal)
8	UU-P18.1054	Filter Element
9		Dust Cap
10	HS.52	Clamp
11	UU-P105608	Rubber Hump Hose
12	800.3408	Aluminum Pipe

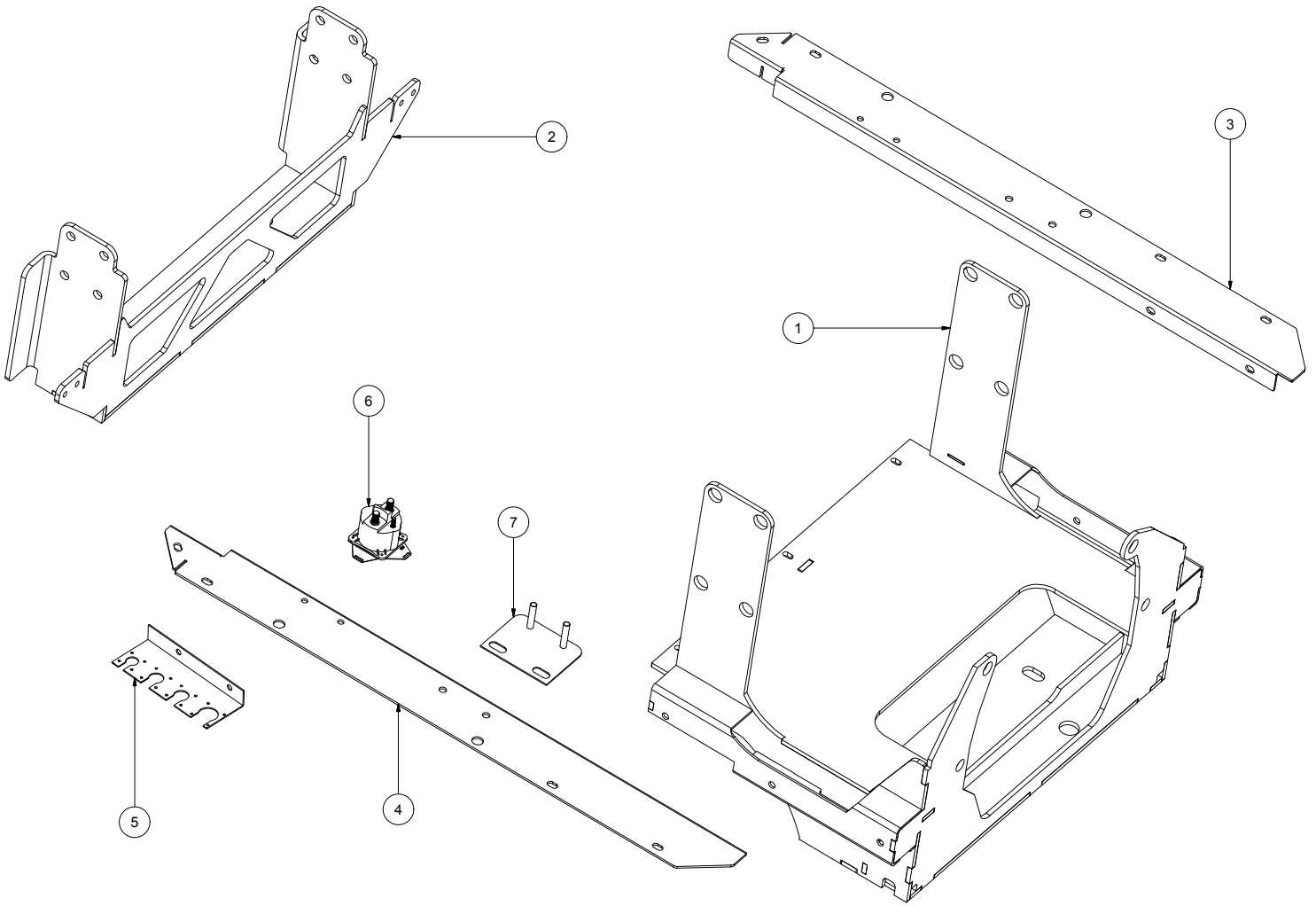
## 6.2 Sheet Metal Group, SCL 3X



ITEM#	PART NO.	DESCRIPTION	ITEM#	PART NO.	DESCRIPTION
1	4045T.2102S	Hood, SCL800, JD TURBO	11	4045.2112T	Rear Panel, SCL
2	4045.2102A	Radiator Access Door	12	4045.2105	Upper Side Panel, RH
3	4045.2102C	Radiator Access Door Hinge	13	4045.2108	Panel Door, RH
4	LCT60.624A	Lift and Turn Latch	14	LCT60.624	Lift and Turn Latch
5	4045.2102B	Oil Fill Access Door	15	LCT609.602	Overcenter Latch
6	4045.2101	Front Panel	16	4045.2112F	Cover, Solenoid
7	4045.0018	Radiator Screen	17	STD.6304	Wiring Plug Bracket
8	LCT650.114	Radiator Screen Clamp	18	2856.26012	Door Grommet
9	4045.2109	Panel Door, LH			
10	4045.2106A	Upper Side Panel, LH			

# 6.3 Engine Mount Group

John Deere 4045T

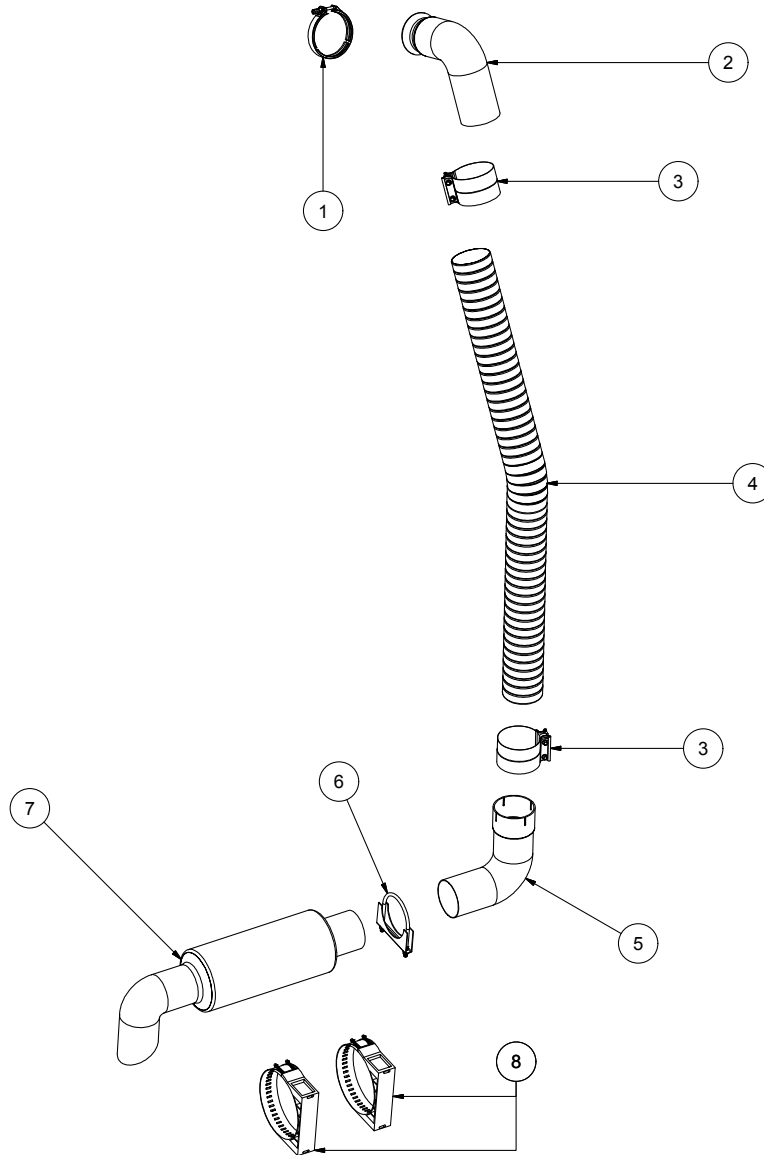


012113

ITEM #	PART NUMBER	DESCRIPTION
1	4045.2151A	Engine Mount, Front
2	4045.2152	Engine Mount, Rear
3	4045.2154	Side Rail, LH
4	4045.2153	Side Rail, RH
5	STD.6304C	Plug Bracket
6	ST40	Starter Solenoid
7	400016	Fuel Line Bracket

# 6.4 Muffler (Exhaust) Assembly

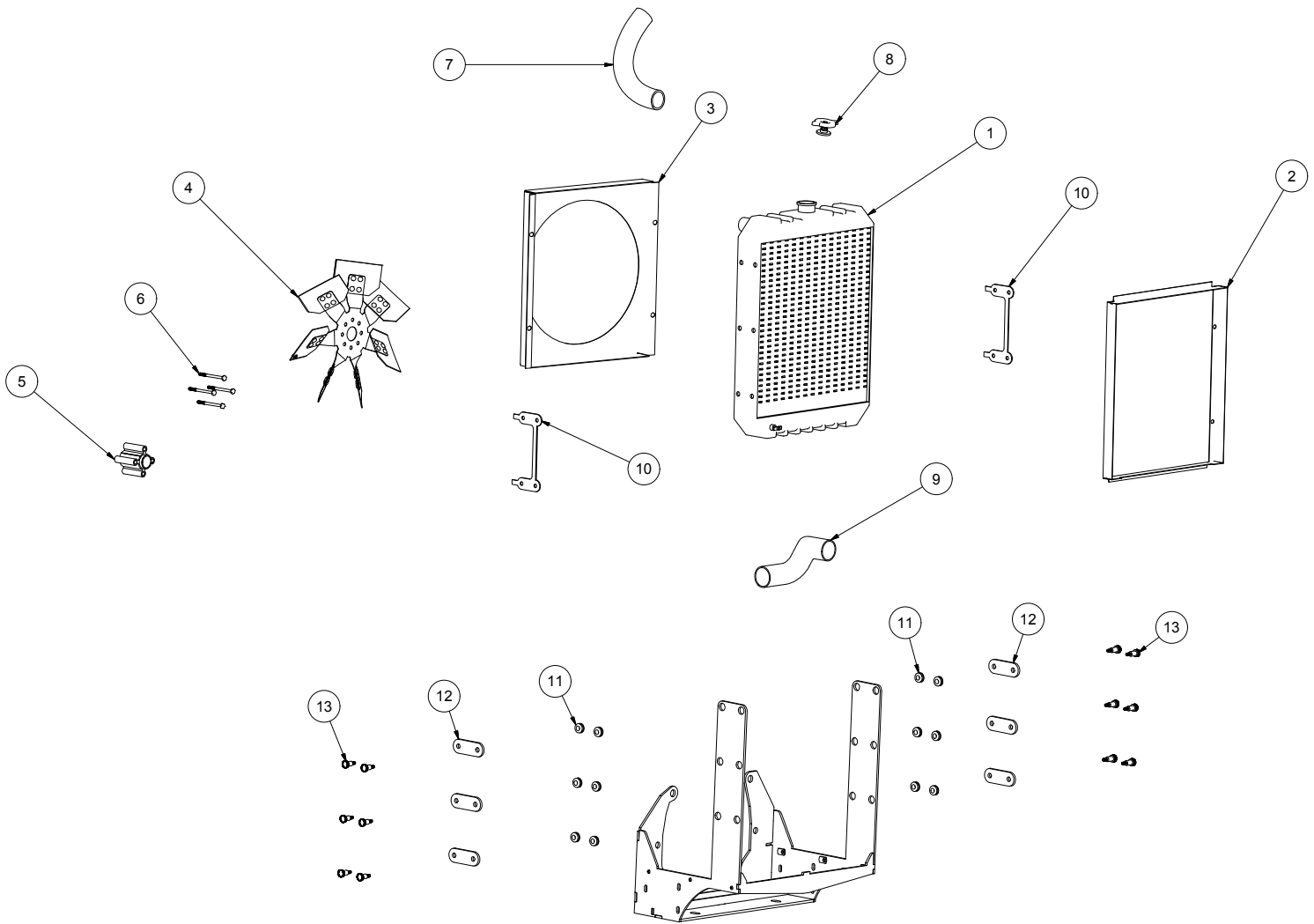
May 2004 and after



ITEM #	PART NUMBER	DESCRIPTION
1.	STD.2703	Clamp
2.	800.3401	90 Degree Elbow to turbocharger
3.	800.3404	Clamp
4.	800.3402	Flex Pipe, 4" D
5.	800.3403	90 Degree elbow to muffler
6.	800.3407	Clamp, Muffler
7.	800.3405	Muffler
8.	UU-P007191	Muffler Support Bands

# 6.5 Radiator Assembly Group

John Deere after August 1996

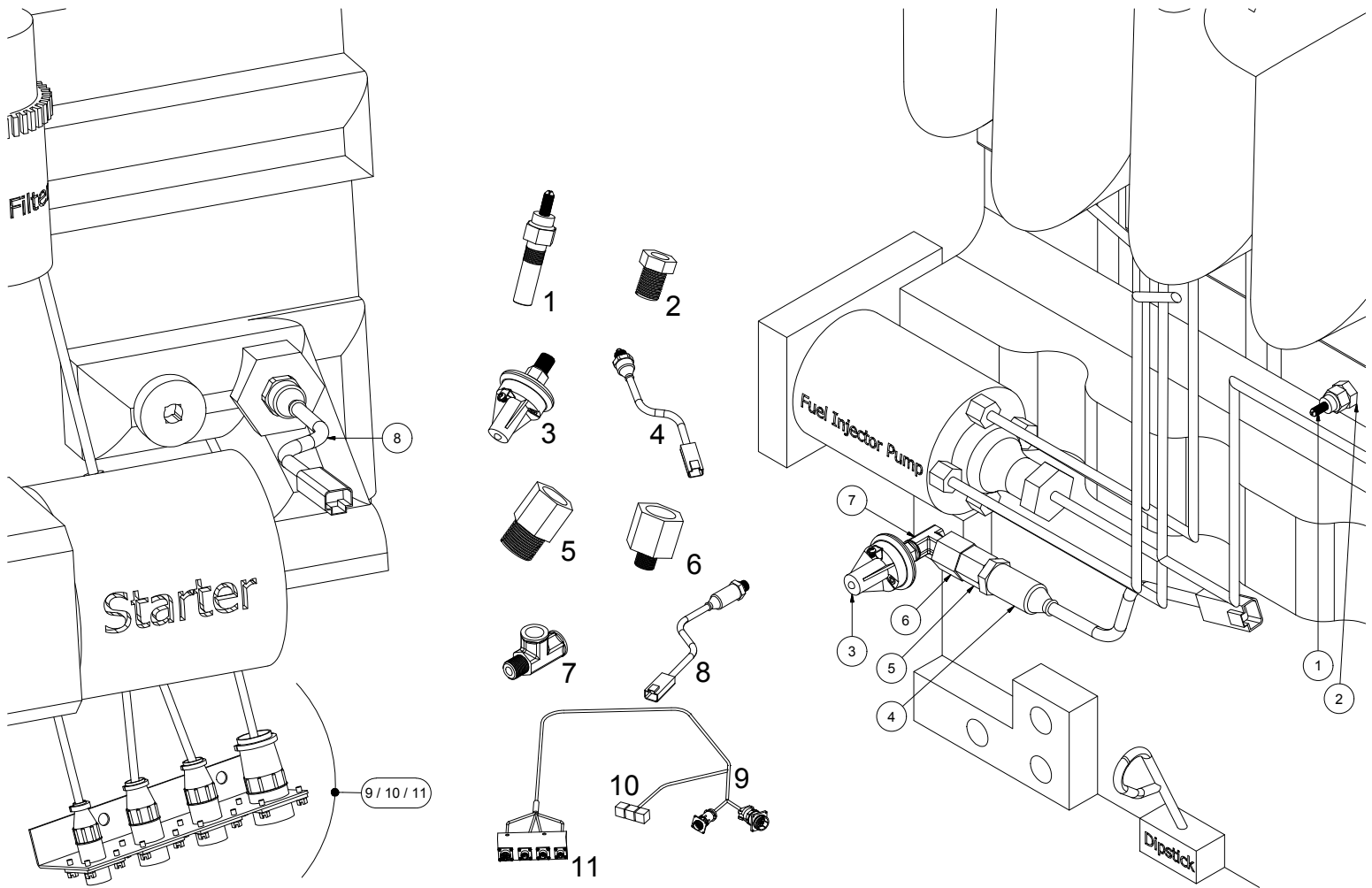


ITEM#	PART NO.	DESCRIPTION
1	4045.9501A1	Radiator
2	4045.2190B	Front Fan Shroud
3	4045.2190A	Rear Fan Shroud
4	AT35158.A	Radiator Fan
5	R128443	Fan Spacer
6	G8M8X090	Spacer Bolts, 4 required
7	81331	Upper Radiator Hose

ITEM#	PART NO.	DESCRIPTION
8	10300	Radiator Cap
9	4045.9681	Lower Radiator Hose
10	4045.2151E1	Radiator Shim
11	H9601	Radiator Grommet
12	4045.2151F	Radiator Bolt Bracket
13	ZSB.500.750	Shoulder Bolt

# 6.6 Engine Senders / Switch Group

John Deere Engines - IQAN only

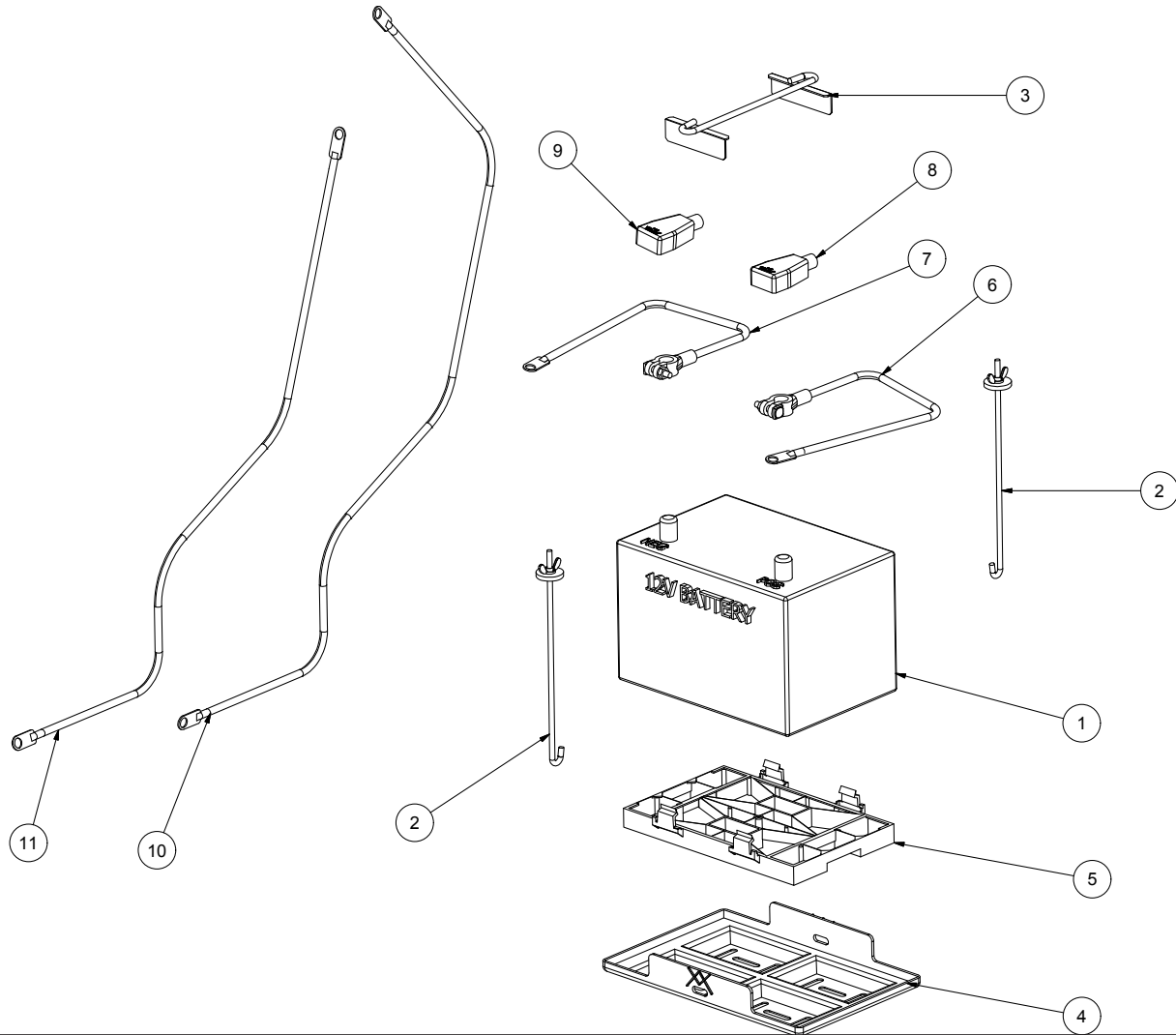


ITEM #	PART NO.	DESCRIPTION
1	35423.049	Water Temperature Switch
2	C5104.4.2	Fitting
3	9603273	Oil Pressure Switch
4	TCC.2008	Oil Pressure Sender
5	HYF.1155	Bushing for Oil Pressure Sender, IQAN only
6	HYF.1156	Reducing Bushing, 3/8"x1/8" PTR, IQAN only

ITEM #	PART NO.	DESCRIPTION
7	3750.2	T-Fitting
8	TCC.2007	Water Temperature Sender, IQAN only
9	TCC.2011C	Engine Wiring Harness, IQAN only
10	0.332.209.151	Relay, uses 3 (all the same)
11	STD.6304C	Harness Connector Plate

# 6.7 Battery Group

Standard units 2001 and after

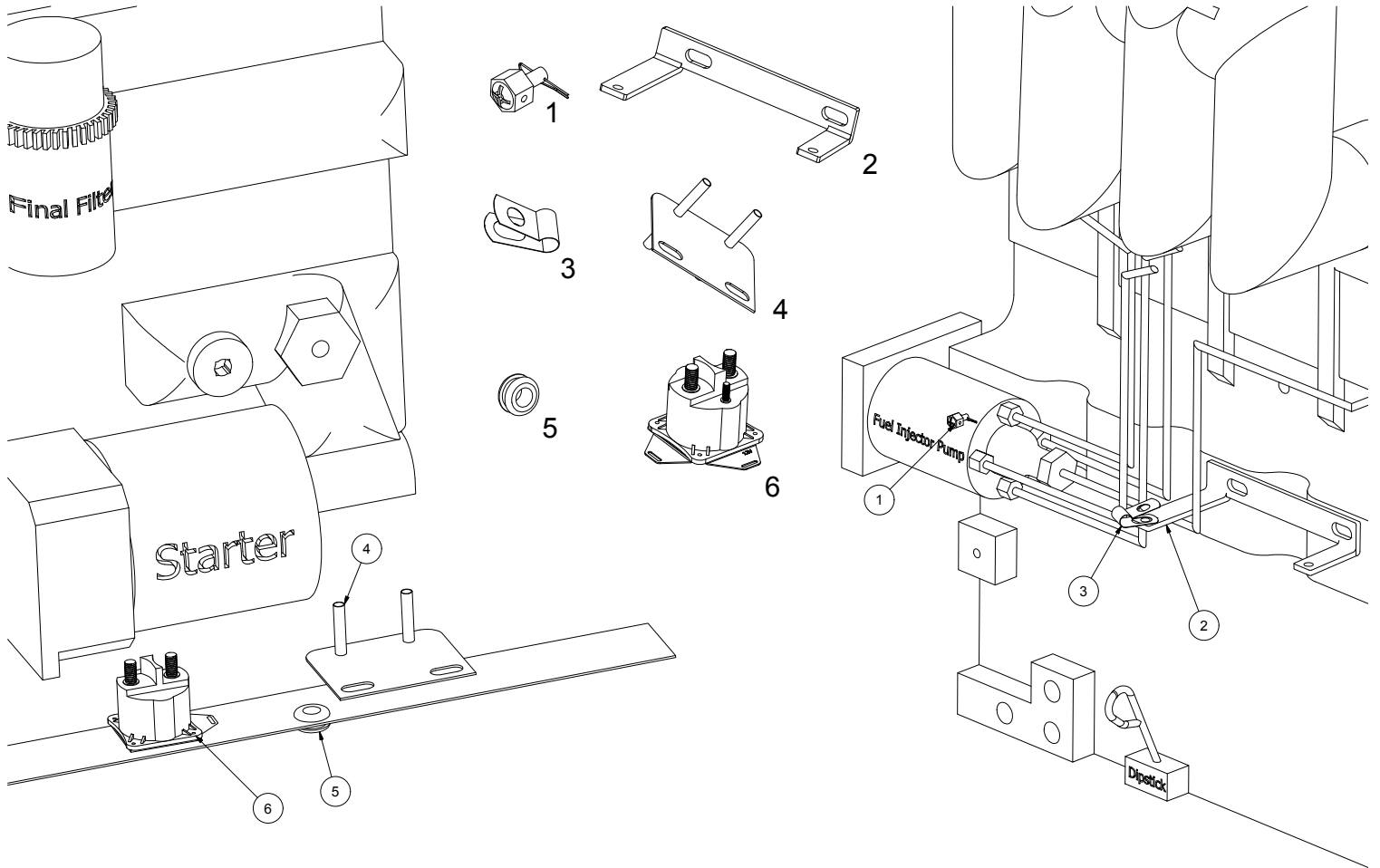


ITEM #	PART #	DESCRIPTION
1.	STD.2200	Battery, not shippable
2.	BHB10J	J-Hook
3.	BHCB	Battery Hold Down Bar
4.	BTS1	Battery Tray, all but SCL's
5.	BTSC	Battery Tray, SCL
6.	SCL.42B	Positive Battery Cable, Battery to Solenoid - SCL (standard)- 42" long
	LCT600.84B	Positive Battery Cable, Battery to Solenoid - SCL (Belt-Drive) - 84" long
7.	LCT60.15B	Negative Battery Cable, all - 15" long
8.	BTC.R	Terminal Cover, Red, all
9.	BTC	Terminal Cover, Black, all
10.	LCT600.72SS	Red Cable to Hydraulic Boom Pump, SCL/600/6000 - 72" long
11.	LCT600.24SS	Ground (Black) Cable to Chassis, 600/6000/60C - 24"



# 6.8 Engine Miscellaneous Parts Group

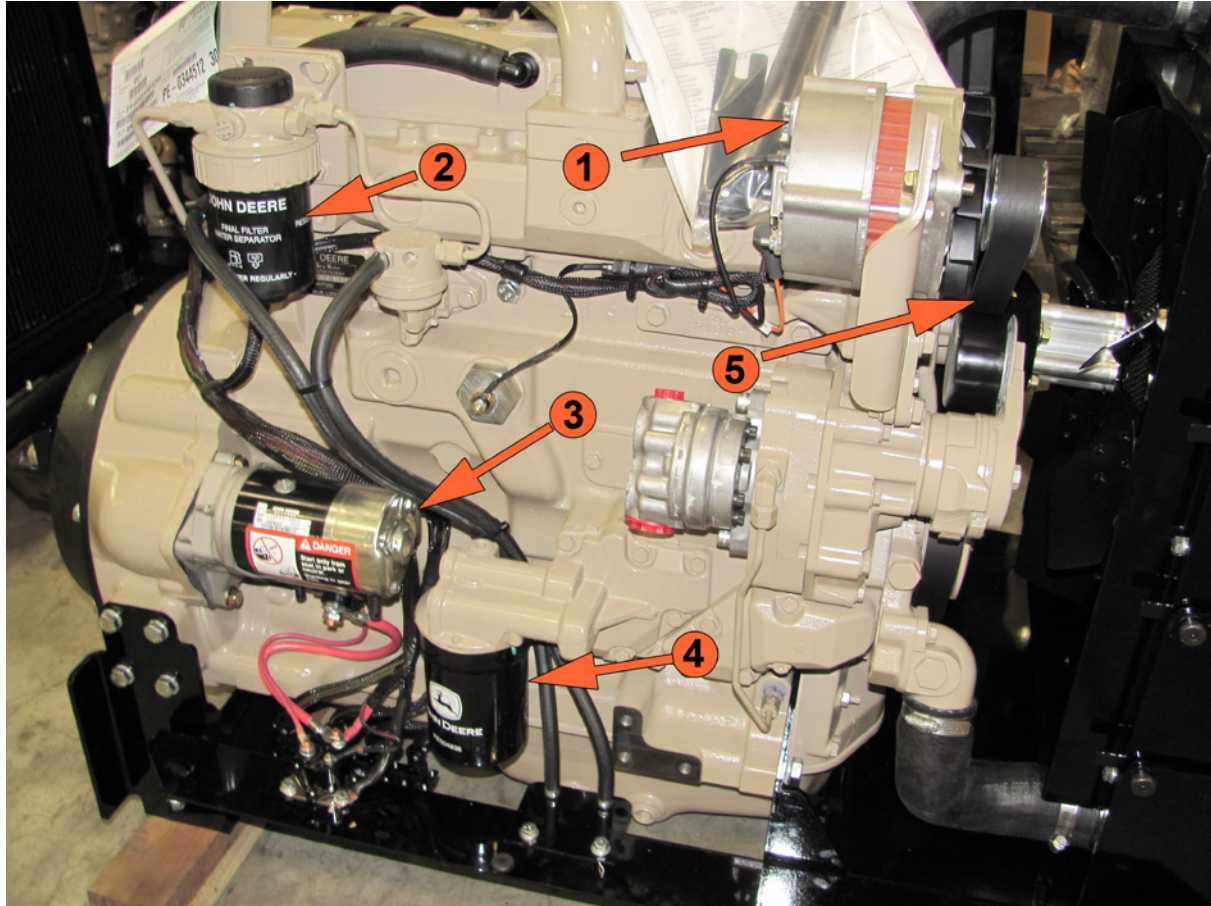
John Deere Engines



ITEM #	PART NUMBER	DESCRIPTION
1	39011.2	Throttle Connector
2	4045T.9101	Throttle Cable Bracket
3	4045T.9101A	Throttle Cable Clamp
4	400016	Fuel Line Bracket
5	2856.26012	Grommet - Door
6	ST40	Starter Solenoid

## 6.9 John Deere Common Engine Parts Group

John Deere 4045T-84HP Engines

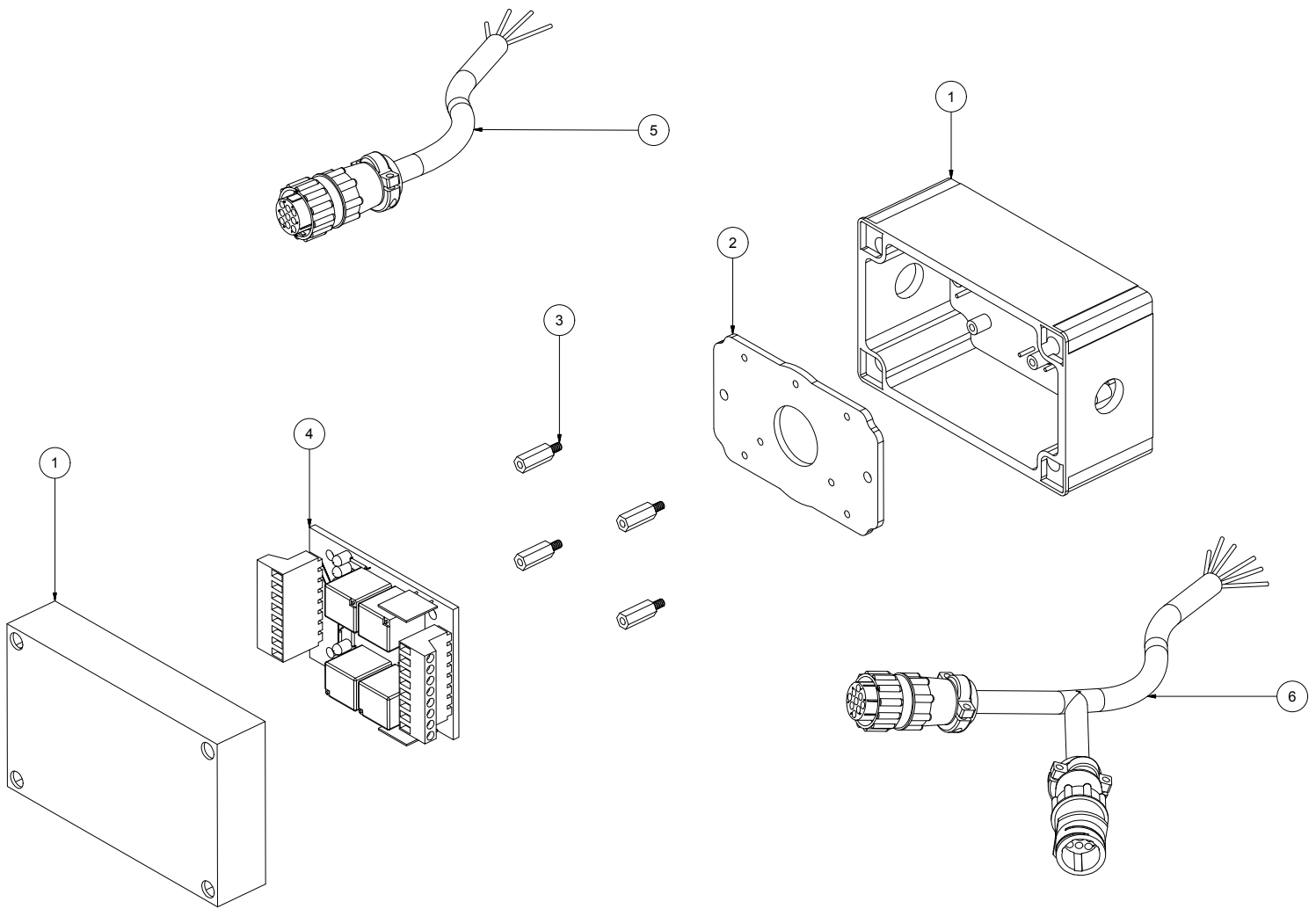


012313

ITEM #	PART NUMBER	DESCRIPTION
1	JD-RE533516	Alternator
2	JD-RE522868	Fuel Water Separator
3	JD-RE59588	Starter Motor
4	JD-RE504836	Oil Filter
NS	JD-R502513	O-Ring for Oil Filter
5	JD-R123438	Serpentine Belt

# 6.10 Remote Clutch / Throttle Circuit Board Assembly

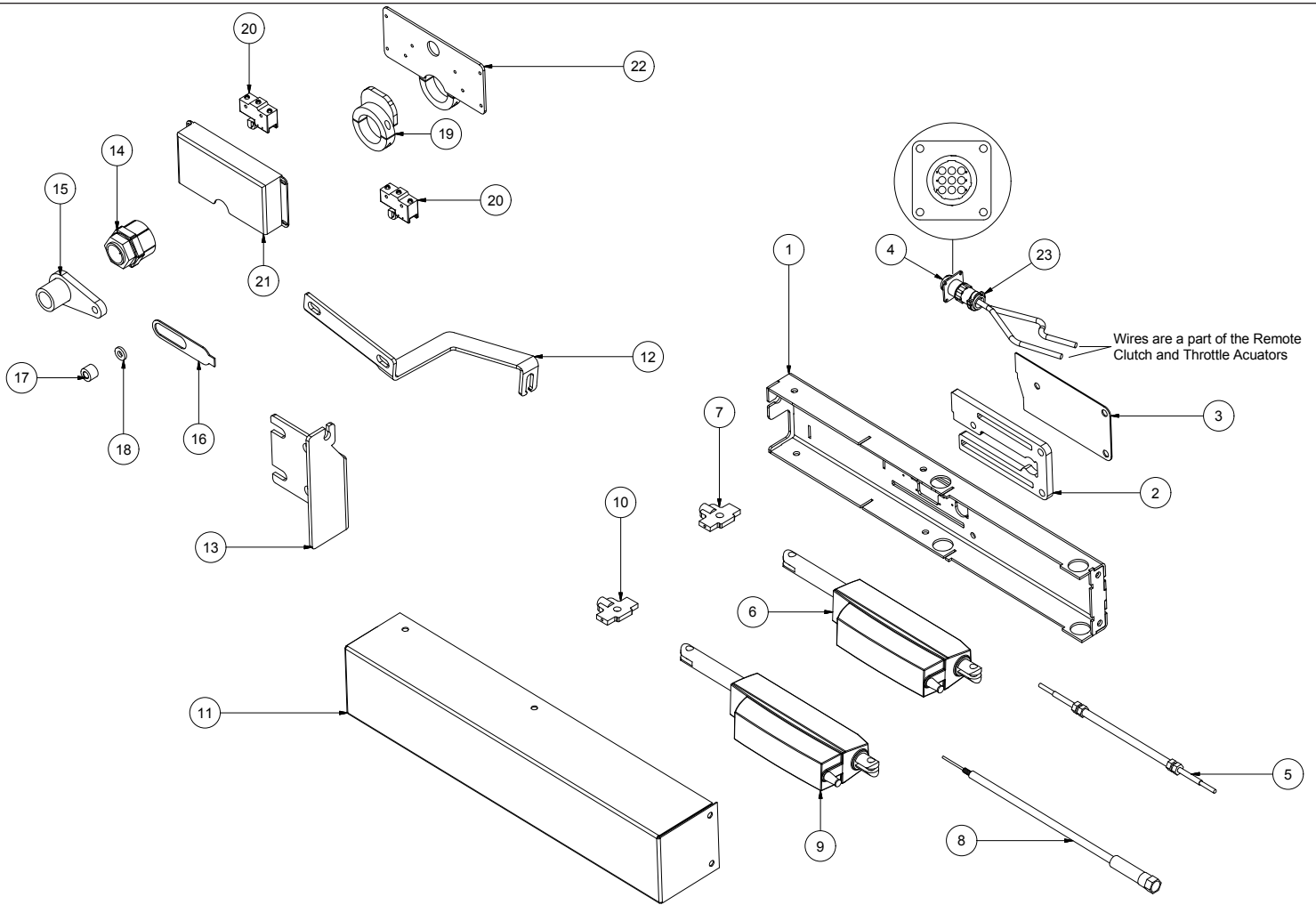
October 2005 and after with remote throttle / clutch option



ITEM #	PART NUMBER	DESCRIPTION
*	STD.3000	Entire Assembly
1	only available as an assembly	Box and Cover
2	only available as an assembly	Backing Plate
3	only available as an assembly	Spacer, rquires 4
4	only available as an assembly	Circuit Board
5	only available as an assembly	Actuator Wiring Harness
6	only available as an assembly	Instrument Panel and Nozzle Wiring Harness

Note: This assembly is only used if the unit is equipped with the OPTIONAL remote clutch or remote throttle configuration.

# 6.11 Remote Clutch and Remote Throttle Assembly

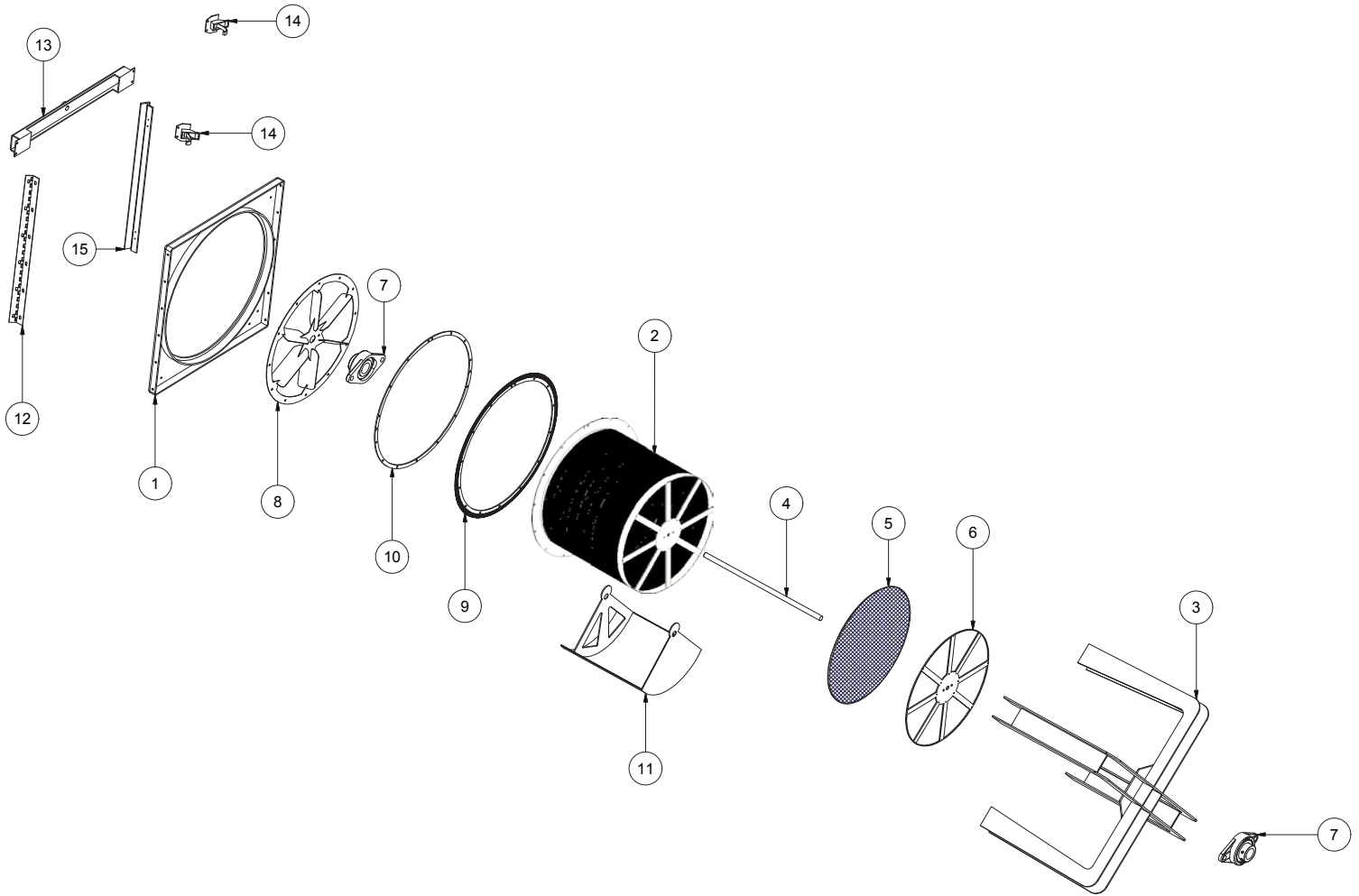


ITEM #	PART NO.	DESCRIPTION
	STD.6550B	Entire Assembly
1	STD.6551A	Mounting Base
2	STD.6551A.01	Thick Spacer
3	STD.6551A.02	Thin Spacer
4	STD.2919	CPC Plug, 6 Pin
5	STD.6554 STD.6554B	Clutch Cable - Direct Drive Clutch Cable - Belt Drive
6	STD.6556	Clutch Actuator (top)
7	STD.6559	Cable Adaptor - clutch
8	STD.6553 STD.6553B	Throttle Cable - direct drive Throttle Cable - belt drive
9	STD.6557	Throttle Acuator (bottom)
10	STD.6558	Cable Adaptor-throttle

ITEM #	PART NO.	DESCRIPTION
11	STD.6552A	Cover
12	4045.6565	Throttle Cable Bracket
13	4045.6564	Clutch Cable Bracket
14	STD.6563	Torque Coupling
15	STD.6562	Coupling Sleeve
16	STD.6560	PTO Cable Adaptor
17	STD.6561	Roller Bearing
18	STD.6568	Spacer Washer
19	STD.6569	Collar Cam (3x only)
20	800.433	Limit Switch (3x only)
21	STD.6571	Cover
22	STD.6570	Limit Switch Bracket
23	STD.2916	CPC Housing

011113

## 6.12 Chaffe Eliminator Assembly, hinged



ITEM #	PART NO.	DESCRIPTION
*	RAS.100	Chaffe Assembly
1	RAS.102	Base Frame and Support Frame Assembly (#1 and #3 welded together).
2	RAS.103	Barrell Assembly
3	RAS.104	Support Frame, thru 04/02; after May 2002 must order RAS.102A
4	RAS.105	Shaft
5	RAS.106	Mesh Screen
6	RAS.107	Screen Holder
7	RAS.108	Flange Bearing

ITEM #	PART NO.	DESCRIPTION
8	RAS.101	Fan
9	RAS.109	Strip Brush
10	RAS.110	Brush Holder
11	RAS.111	Air Deflector
12	RAS.112	Hinge
13	RAS.113	Shaft Bracket
14	LCT609.602	Over center Latch, all but LCT650
	LCT650.114	Destaco Latch, not shown, LCT650 only
15	RAS.114	Angle Frame, LCT650 only



## 7-0

### 7.0 CLUTCH GROUP

#### 7.0 CLUTCH GROUP

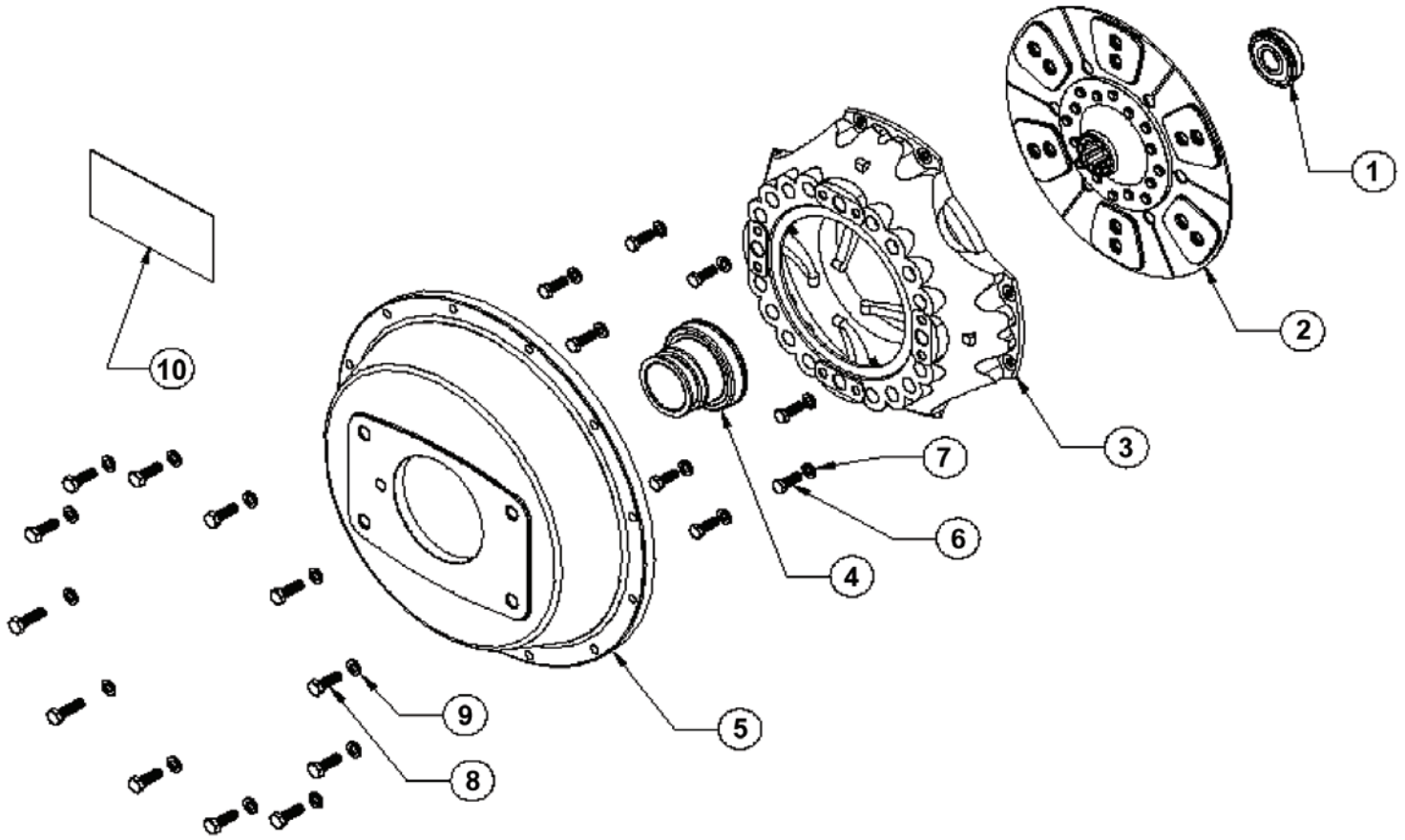
7-0 .....	110
7.1 AutoHD PTO Clutch Group.....	111
7.2 AutoHD PTO Assembly Group .....	112
7.3 AutoHD PTO Linkage Group .....	113
7.4 Clutch Assist Group .....	114
7.5 Kraft Fluid Drive Group (Optional).....	115
7.6 Kraft Fluid Drive Installation (Optional).....	116
7.7 Kraft Fluid Drive Breakdown (Optional) .....	117
7.8 Kraft Fluid Drive Common Parts (Optional).....	118

**CLUTCH GROUP**

**ODB COMPANY**  
**5118 Glen Alden Drive**  
**Richmond, VA 23231**  
**800-446-9823**

# 7.1 AutoHD PTO Clutch Group

February 2006 - Present



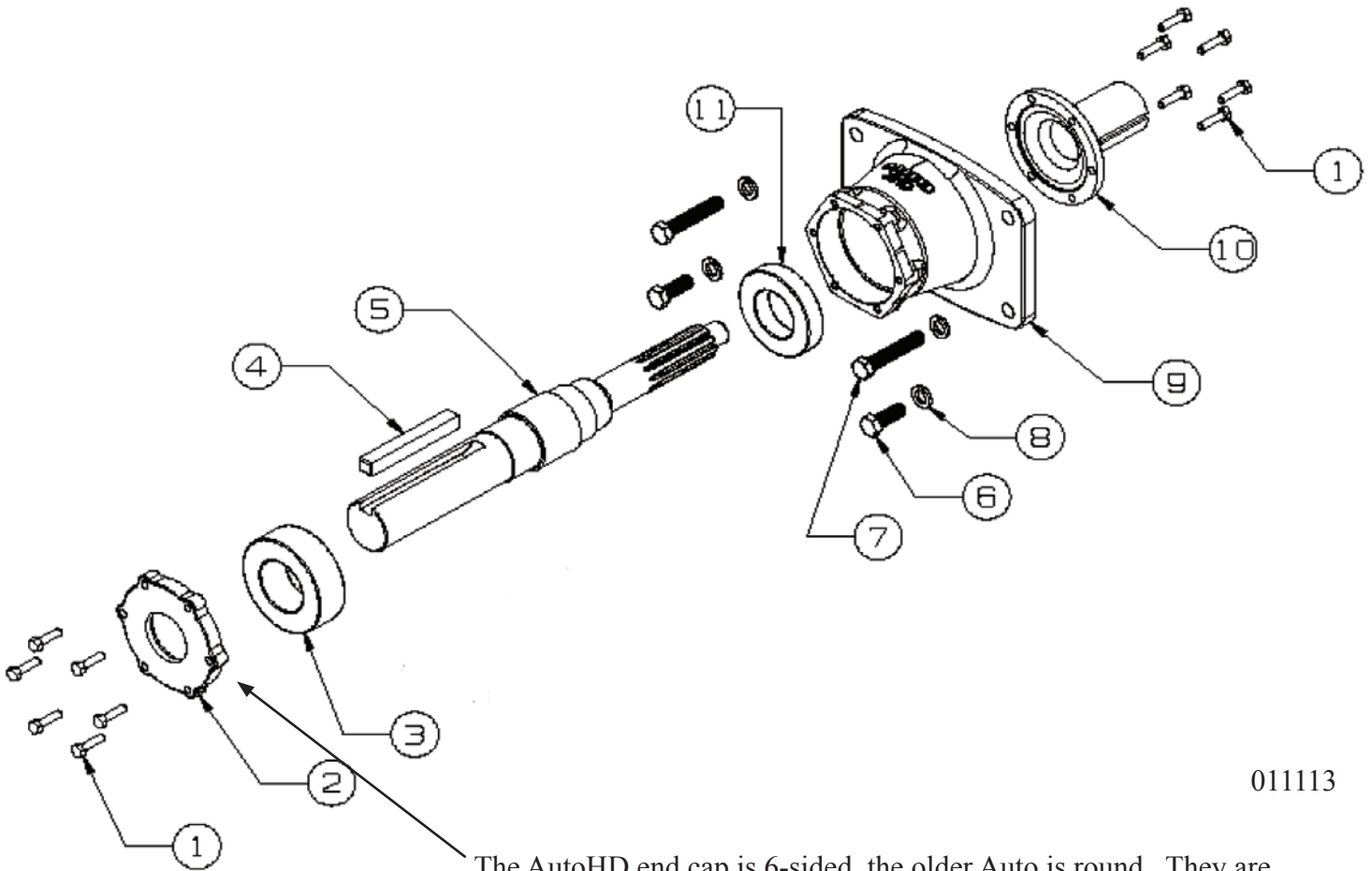
ITEM #	PART NUMBER	DESCRIPTION
*	OD-48080050.8OF	*Complete PTO and Clutch Assembly 03/08 -
1	OD-41500217	Pilot Bearing, JD
2	OD-41500237	Clutch Disk
3	OD-LC1919	Pressure Plate, 03/08 -
4	OD-41500248	Throw out Bearing, 03/08 -
5	OD-41500172	Clutch Cover
6	OD-45000054	Bolt, 3/18-16 x 1"
7	OD-45000063	Lock Washer, 3/8"
8	OD-45000226	Bolt, M10-1.50 x 35MM
9	OD-45000046	Lock Washer, M10
10	OD-41500216	Decal, Diesel Clutch

011113

Note: \*48080050 and 48080050.8OF includes the everything on this page, the AutoHD PTO page and the AutoHD linkage page. This is the complete PTO/Clutch assembly. It does not include the clutch assist assembly.

# 7.2 AutoHD PTO Assembly Group

February 2006 - Present



011113

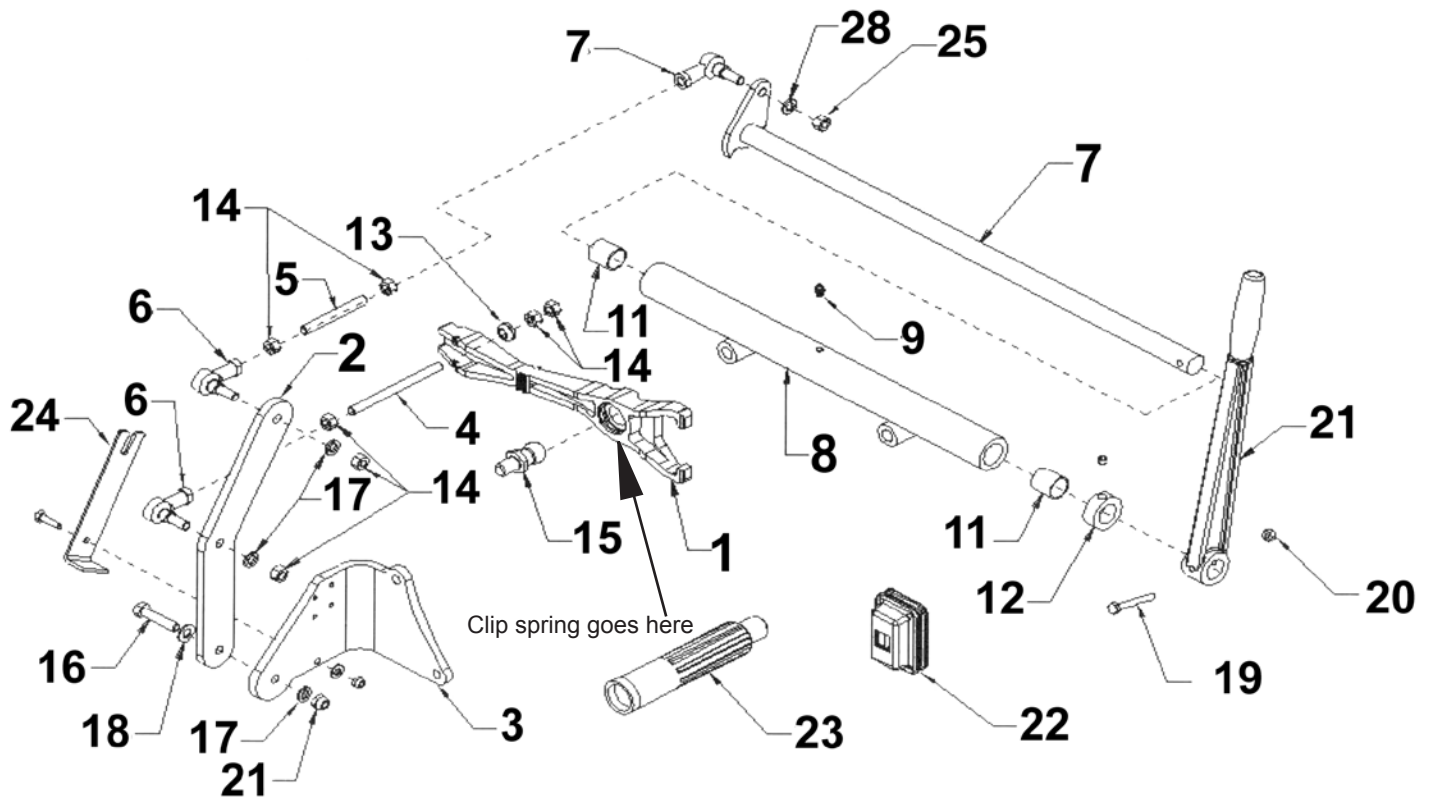
The AutoHD end cap is 6-sided, the older Auto is round. They are not interchangeable! Some units in the time period above used the standard Auto PTO. Please verify.

ITEM #	PART NUMBER	DESCRIPTION
*	OD-41500252	Complete PTO Assembly (items 1 -11,13)
**	OD-48080050.80F	**Complete PTO & Clutch Assembly
1	OD-45000212	Bolt, 5/16-18 x 1-1/4" HD model
2	OD-41500205M	Bearing Retainer Cover
3	OD-41500206	PTO Bearing, Rear
4	OD-LCT650.601K OD-LCT650.601F	Key, Stepdown--direct drive units only Key, belt drive units only
5	OD-41500203	PTO shaft
6	OD-45000105	Bolt, 9/16-12 x 1- 3/4"
7	OD-45000177	Bolt, 9/16-12 x 3"
8	OD-45000103	Lock Washer, 9/16"
9	OD-41500204	PTO Housing
10	OD-41500242	PTO Collar, 03/08 - present
11	OD-41500207	PTO Bearing, Front



# 7.3 AutoHD PTO Linkage Group

February 2006 - Present



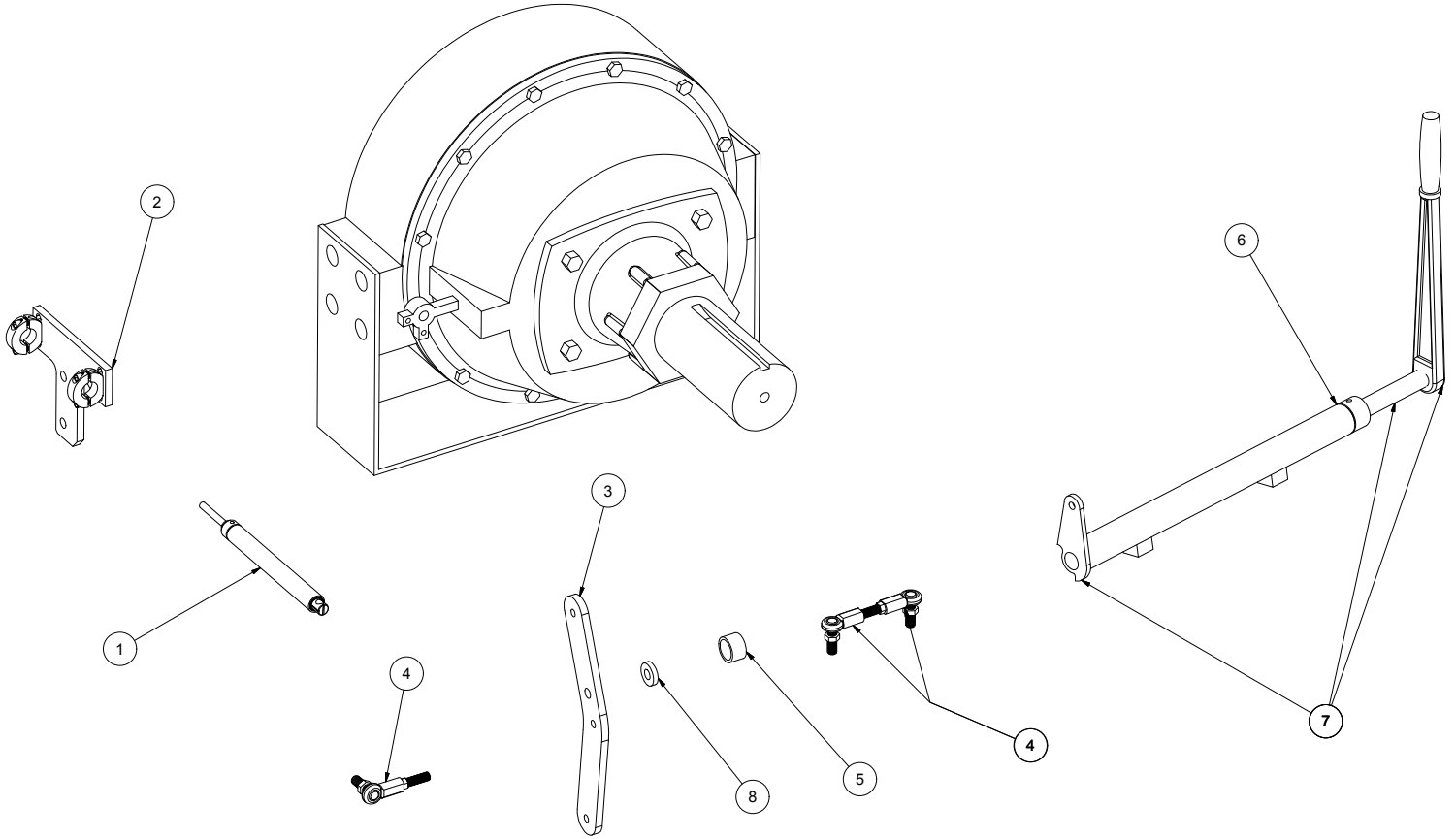
ITEM #	PART NO.	DESCRIPTION
1	41500251	Fork, 03/08-
NS	41500174	Clip Spring in Fork
NS	41500999	Return Spring
2	41500095	Linkage Bracket
3	41500241	Linkage Bracket
4	41500065	Linkage Rod
5	41500066	Linkage Rod
6	41500019	Linkage Rod End
7	see below	Shaft, Lever
8	41500102	Shaft Housing, AutoHD
9	41500043	Grease Zerk
10	NLA	NLA

ITEM #	PART NO.	DESCRIPTION
11	41500045	Shaft Bushing
12	41500046	Shaft Collar
13	41500030	Rocker Ball
14	45000050	Nut, 3/8 - 16
15	41500072	Pivot Ball 03/08-
16	45000177	Bolt, 3/8 - 16 x 1 3/4"
17	45000063	Lock Washer, 3/8"
18	45000064	Flat Washer, 3/8"
19	45000012	Bolt, 1/4 - 28 x 2"
20	45000015	Locknut, 1/4 - 28
21	41500044	Handle
22	41500175	Boot
23	41500164	Alignment Tool
24	41500103	Alignment Tool

011113

# 7.4 Clutch Assist Group

Auto HD PTO- John Deere 4045D/T (11/00 - );



ITEM #	PART NUMBER	DESCRIPTION
1	400050.A	Clutch Cylinder
2	400054.C	Cylinder Support Bracket, JD
3	41500095	Clutch Bracket Arm, Auto HD
4	41500019	Linkage, Rod end
	41500019A	Linkage, Threaded insert
5	400050.C1	Bearing
6	41500102	Pivot Shaft Tube, Auto HD
7	41500041A.HD	Pivot Shaft,
8	400050.C2	Spacer

011113

# 7.5 Kraft Fluid Drive Group (Optional)

Fluid Drive Coupler (Optional)

# TRANSFLUID

## trasmissioni industriali



1000B Northbrook Parkway

Suwanee, GA 30024

Ph: 770-963-6288

Fax: 770-963-9678

E-mail: [transfluid@kraftpower.com](mailto:transfluid@kraftpower.com)

Massachusetts - New Jersey - New York - North  
Carolina - Ohio - Pennsylvania

### INSTALLATION AND MAINTENANCE MANUAL

THIS MANUAL CONTAINS INSTRUCTIONS FOR  
INSTALLATION, START UP, FUNCTIONING, AND  
MAINTENANCE KFBD POWER TAKE OFFS.

WE SUGGEST THAT ANY PERSON WHO IS  
RESPONSIBLE FOR USE AND/OR MAINTENANCE  
SHOULD BE PROVIDED WITH THIS MANUAL. THE  
RESPECT OF RULES, CONTAINED IN THIS MANUAL IS  
MANDATORY FOR WARRENTY VALIDITY.

WE REQUIRE THAT, FOR SPARE PARTS ORDERS, IT  
IS IMPORTANT TO PROVIDE, BESIDES PART NUMBER  
AND QUANTITY: MODEL, SPECIFICATION No AND  
SERIAL No WHICH ARE STAMPED ON NAME PLATE.

Type :

Spec. nr. :

Serial nr. :

**drive with us**

**13KFBD**

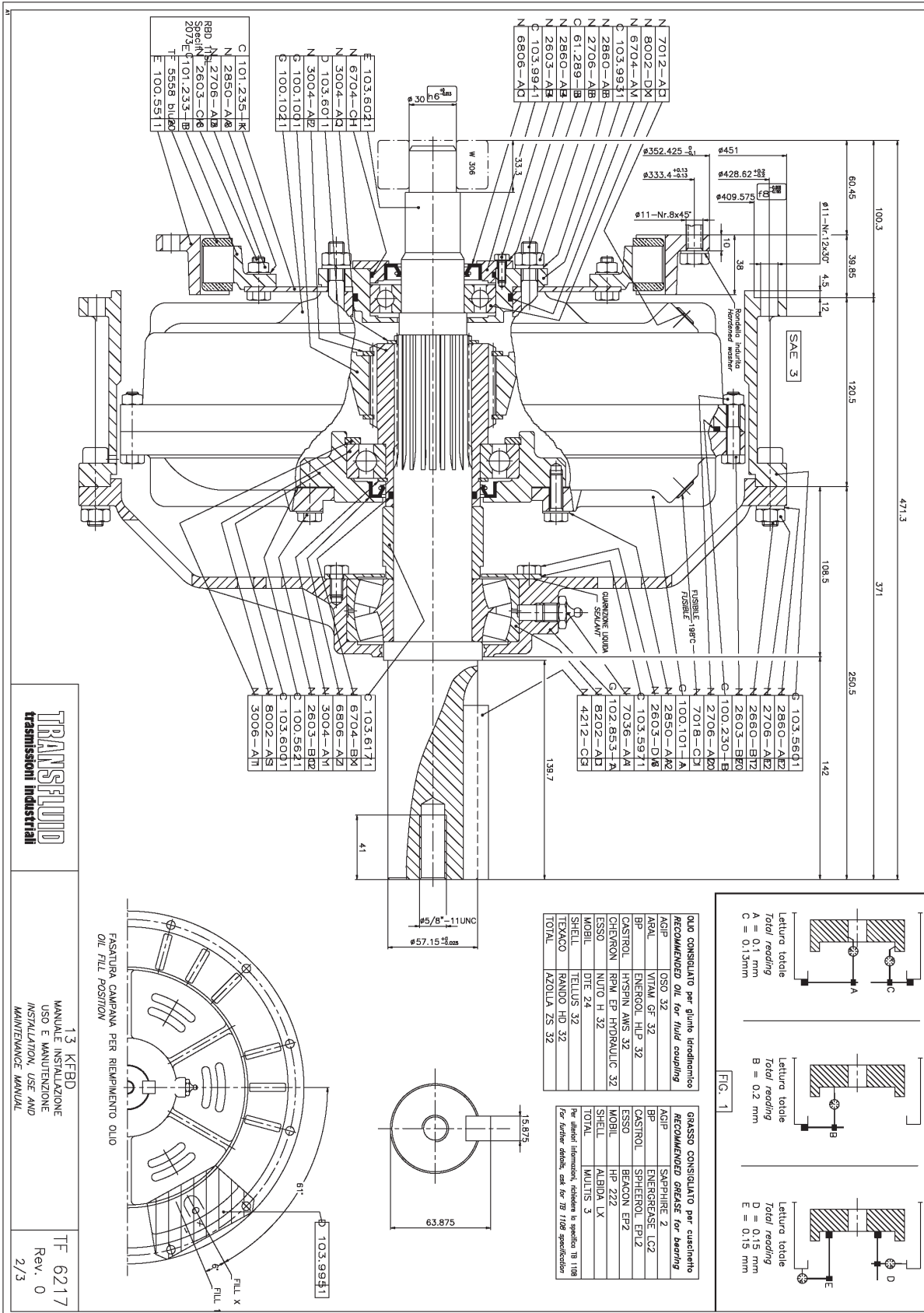
# 7.6 Kraft Fluid Drive Installation (Optional)

## Fluid Drive Coupler (Optional)

 <p><b>trasmissioni industriali</b></p>	 <p>13 KFB MANUALE INSTALLAZIONE, USO E MANUTENZIONE INSTALLATION, USE AND MAINTENANCE MANUAL</p>	<p>TF 6217 Rev.0 1/3</p>				
<p>Questo manuale contiene le istruzioni per l'installazione, l'avviamento, l'uso e la manutenzione del giunto idrodinamico tipo KFB. <b>CONSIGLIAMO CHE I RESPONSABILI DELL'USO E DELLA MANUTENZIONE DEL KFB, VENGANO DOTATI DEL PRESENTE MANUALE. IL NON RISPETTO DELLE REGOLE CITATE IN QUESTO MANUALE, PROVOCA IL DECADERE DELLA GARANZIA.</b></p> <p>Ricordiamo che, per ordinare le parti di ricambio, e' importante specificare, oltre al numero di dettaglio e quantita' richiesta, anche: TIPO - N° di SPECIFICA - N° di SERIE del KFB, che si trovano stampigliati sulla targhetta di identificazione a bordo macchina.</p> <p><i>This manual contains instructions for installation, start up, working, and maintenance of KFB fluid coupling.</i></p> <p><b>WE SUGGEST THAT ANY PERSON WHO IS RESPONSIBLE FOR USE AND/OR MAINTENANCE, SHOULD BE PROVIDED WITH THIS MANUAL. THE RESPECT OF RULES, CONTAINED IN THIS MANUAL, IS MANDATORY FOR WARRANTY VALIDITY.</b></p> <p><i>We recall that, for spare parts order, it is important to provide, besides detail number and quantity, even: TYPE - SPECIFICATION Nr. - SERIAL Nr. of KFB that are stamped on identification metal plate.</i></p>						
<table border="1"> <thead> <tr> <th data-bbox="284 588 820 619">DESCRIZIONE</th> <th data-bbox="820 588 1364 619">DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td data-bbox="284 619 820 756">                     Il KFB e' un giunto idrodinamico la cui parte esterna, motrice, e' collegata al volano di un motore endotermico mediante un giunto elastico ed il cui albero di uscita e' supportato da un cuscinetto orientabile a rulli, lubrificato ad olio, alloggiati in una campana di supporto flangiata al coprivolano del motore. Un secondo cuscinetto, alloggiato nel volano, sostiene l'albero di uscita dal lato motore. Il KFB e' adatto per applicazioni con puleggia od i linea.                 </td> <td data-bbox="820 619 1364 756">                     KFB is a fluid coupling having the outer driving impeller connected to the internal combustion engine flywheel through an elastic coupling. The output shaft is supported by a spherical roller bearing, oil lubricated, fitted in a cover flanged to the engine flywheel housing. Another bearing, fitted into the flywheel, supports the output shaft at the engine side. The KFB is suitable for pulley or in line applications.                 </td> </tr> </tbody> </table>			DESCRIZIONE	DESCRIPTION	Il KFB e' un giunto idrodinamico la cui parte esterna, motrice, e' collegata al volano di un motore endotermico mediante un giunto elastico ed il cui albero di uscita e' supportato da un cuscinetto orientabile a rulli, lubrificato ad olio, alloggiati in una campana di supporto flangiata al coprivolano del motore. Un secondo cuscinetto, alloggiato nel volano, sostiene l'albero di uscita dal lato motore. Il KFB e' adatto per applicazioni con puleggia od i linea.	KFB is a fluid coupling having the outer driving impeller connected to the internal combustion engine flywheel through an elastic coupling. The output shaft is supported by a spherical roller bearing, oil lubricated, fitted in a cover flanged to the engine flywheel housing. Another bearing, fitted into the flywheel, supports the output shaft at the engine side. The KFB is suitable for pulley or in line applications.
DESCRIZIONE	DESCRIPTION					
Il KFB e' un giunto idrodinamico la cui parte esterna, motrice, e' collegata al volano di un motore endotermico mediante un giunto elastico ed il cui albero di uscita e' supportato da un cuscinetto orientabile a rulli, lubrificato ad olio, alloggiati in una campana di supporto flangiata al coprivolano del motore. Un secondo cuscinetto, alloggiato nel volano, sostiene l'albero di uscita dal lato motore. Il KFB e' adatto per applicazioni con puleggia od i linea.	KFB is a fluid coupling having the outer driving impeller connected to the internal combustion engine flywheel through an elastic coupling. The output shaft is supported by a spherical roller bearing, oil lubricated, fitted in a cover flanged to the engine flywheel housing. Another bearing, fitted into the flywheel, supports the output shaft at the engine side. The KFB is suitable for pulley or in line applications.					
<p><b>Prima di iniziare il montaggio del KFB sul motore, e' bene verificare che il volano rientri nelle tolleranze SAE. Questo e' importante soprattutto per il buon funzionamento del giunto elastico. (Vedere foglio 2/3 Fig.1)</b></p> <p><i>Before KFB be mounted onto the engine, it is recommended to check that flywheel be within SAE tolerances. This is very important for elastic coupling good working. (see sheet 2/3 Fig.1)</i></p>						
<table border="1"> <thead> <tr> <th data-bbox="284 945 820 976">INSTALLAZIONE (vedere foglio 2/3)</th> <th data-bbox="820 945 1364 976">INSTALLATION (see sheet 2/3)</th> </tr> </thead> <tbody> <tr> <td data-bbox="284 976 820 1816"> <ol style="list-style-type: none"> <li>Montare l'anello di trascinamento del giunto elastico sul volano del motore.</li> <li>Montare il cuscinetto pilota, ingrassato a vita, sull'albero del KFB.</li> <li>Montare la flangia SAE 3 sul coprivolano.</li> <li>Posizionare il gruppo completo, osservando con cura l'allineamento dell'albero nel cuscinetto pilota e dei blocchetti del giunto elastico con l'anello di trascinamento montato sul volano. La campana esterna deve essere orientata in modo da avere l'apertura per il riempimento dell'olio a circa 60° dalla verticale, in senso orario guardando il volano del motore. Cosi' montato, si avra' l'apertura di drenaggio dell'olio in basso. Infine fissare il gruppo con le apposite viti sulla flangia esterna.</li> <li>Riempimento olio giunto (vedere tabella olii consigliati). Togliere il coperchio che protegge il tappo di carico. Ruotare il giunto sino a portare il tappo in corrispondenza del segno di riferimento X sulla verticale (X-1-2-3-4 dipende dall'applicazione). Togliere il tappo e riempire fino allo sbocco dal foro (13KFB X=5,2 lt.), quindi chiudere utilizzando del sigillante sul filetto. La coppia di serraggio e' 30 Nm per tappo 3/8". Rimontare il coperchio di protezione.</li> <li>Riempimento grasso (vedere tabella grassi consigliati). Mediante l'apposito ingrassatore,, riempire la camera di lavoro del cuscinetto fino a far fuoriuscire il grasso attorno all'albero</li> <li>Dare alcuni colpi, con un martello non metallico, sull'estremita' dell'albero onde eliminare ogni eventuale tensione sui cuscinetti dovuta alla resistenza offerta dal cuscinetto pilota, quando esso viene montato forzato nella sede del volano.</li> <li>Al primo avviamento, far girare il gruppo innestato, per almeno 10 minuti, con il motore alla meta' dei giri massimi.</li> </ol> </td> <td data-bbox="820 976 1364 1816"> <ol style="list-style-type: none"> <li>Mount elastic coupling driving ring, onto engine flywheel.</li> <li>Mount pilot bearing, greased for life, onto KFB shaft.</li> <li>Mount SAE 3 flange onto flywheel housing.</li> <li>Install complete group paying attention at alignment between shaft and pilot bearing as well as alignment between rubber blocks and driving ring. External housing must be orientated to get the oil fill opening at about 60° clockwise from vertical line, looking at the flywheel. In such a way, the oil drain opening will be downwards. Therefore tighten screws of external flange. Fluid coupling oil filling (see recommended oil table). Remove cover. Turn fluid coupling until X mark be on vertical line (X-1-2-3-4 depends on application). Remove plug and fill until oil overflows (13KFB fill X=5,2 lt.). Therefore fit the plug using sealant on thread. Tightening torque is 30 Nm for 3/8" plug. Fit again the cover. Grease filling (see recommended grease table). Through the grease filler, fill grease until it comes out around the shaft.</li> <li>Rap the shaft on the end to relieve any preloading that may result due to the resistance of pilot bearing when being pressed into the flywheel.</li> <li>At first start up, run the unit engaged and engine at half of max speed for not less than 10 minutes.</li> </ol> </td> </tr> </tbody> </table>			INSTALLAZIONE (vedere foglio 2/3)	INSTALLATION (see sheet 2/3)	<ol style="list-style-type: none"> <li>Montare l'anello di trascinamento del giunto elastico sul volano del motore.</li> <li>Montare il cuscinetto pilota, ingrassato a vita, sull'albero del KFB.</li> <li>Montare la flangia SAE 3 sul coprivolano.</li> <li>Posizionare il gruppo completo, osservando con cura l'allineamento dell'albero nel cuscinetto pilota e dei blocchetti del giunto elastico con l'anello di trascinamento montato sul volano. La campana esterna deve essere orientata in modo da avere l'apertura per il riempimento dell'olio a circa 60° dalla verticale, in senso orario guardando il volano del motore. Cosi' montato, si avra' l'apertura di drenaggio dell'olio in basso. Infine fissare il gruppo con le apposite viti sulla flangia esterna.</li> <li>Riempimento olio giunto (vedere tabella olii consigliati). Togliere il coperchio che protegge il tappo di carico. Ruotare il giunto sino a portare il tappo in corrispondenza del segno di riferimento X sulla verticale (X-1-2-3-4 dipende dall'applicazione). Togliere il tappo e riempire fino allo sbocco dal foro (13KFB X=5,2 lt.), quindi chiudere utilizzando del sigillante sul filetto. La coppia di serraggio e' 30 Nm per tappo 3/8". Rimontare il coperchio di protezione.</li> <li>Riempimento grasso (vedere tabella grassi consigliati). Mediante l'apposito ingrassatore,, riempire la camera di lavoro del cuscinetto fino a far fuoriuscire il grasso attorno all'albero</li> <li>Dare alcuni colpi, con un martello non metallico, sull'estremita' dell'albero onde eliminare ogni eventuale tensione sui cuscinetti dovuta alla resistenza offerta dal cuscinetto pilota, quando esso viene montato forzato nella sede del volano.</li> <li>Al primo avviamento, far girare il gruppo innestato, per almeno 10 minuti, con il motore alla meta' dei giri massimi.</li> </ol>	<ol style="list-style-type: none"> <li>Mount elastic coupling driving ring, onto engine flywheel.</li> <li>Mount pilot bearing, greased for life, onto KFB shaft.</li> <li>Mount SAE 3 flange onto flywheel housing.</li> <li>Install complete group paying attention at alignment between shaft and pilot bearing as well as alignment between rubber blocks and driving ring. External housing must be orientated to get the oil fill opening at about 60° clockwise from vertical line, looking at the flywheel. In such a way, the oil drain opening will be downwards. Therefore tighten screws of external flange. Fluid coupling oil filling (see recommended oil table). Remove cover. Turn fluid coupling until X mark be on vertical line (X-1-2-3-4 depends on application). Remove plug and fill until oil overflows (13KFB fill X=5,2 lt.). Therefore fit the plug using sealant on thread. Tightening torque is 30 Nm for 3/8" plug. Fit again the cover. Grease filling (see recommended grease table). Through the grease filler, fill grease until it comes out around the shaft.</li> <li>Rap the shaft on the end to relieve any preloading that may result due to the resistance of pilot bearing when being pressed into the flywheel.</li> <li>At first start up, run the unit engaged and engine at half of max speed for not less than 10 minutes.</li> </ol>
INSTALLAZIONE (vedere foglio 2/3)	INSTALLATION (see sheet 2/3)					
<ol style="list-style-type: none"> <li>Montare l'anello di trascinamento del giunto elastico sul volano del motore.</li> <li>Montare il cuscinetto pilota, ingrassato a vita, sull'albero del KFB.</li> <li>Montare la flangia SAE 3 sul coprivolano.</li> <li>Posizionare il gruppo completo, osservando con cura l'allineamento dell'albero nel cuscinetto pilota e dei blocchetti del giunto elastico con l'anello di trascinamento montato sul volano. La campana esterna deve essere orientata in modo da avere l'apertura per il riempimento dell'olio a circa 60° dalla verticale, in senso orario guardando il volano del motore. Cosi' montato, si avra' l'apertura di drenaggio dell'olio in basso. Infine fissare il gruppo con le apposite viti sulla flangia esterna.</li> <li>Riempimento olio giunto (vedere tabella olii consigliati). Togliere il coperchio che protegge il tappo di carico. Ruotare il giunto sino a portare il tappo in corrispondenza del segno di riferimento X sulla verticale (X-1-2-3-4 dipende dall'applicazione). Togliere il tappo e riempire fino allo sbocco dal foro (13KFB X=5,2 lt.), quindi chiudere utilizzando del sigillante sul filetto. La coppia di serraggio e' 30 Nm per tappo 3/8". Rimontare il coperchio di protezione.</li> <li>Riempimento grasso (vedere tabella grassi consigliati). Mediante l'apposito ingrassatore,, riempire la camera di lavoro del cuscinetto fino a far fuoriuscire il grasso attorno all'albero</li> <li>Dare alcuni colpi, con un martello non metallico, sull'estremita' dell'albero onde eliminare ogni eventuale tensione sui cuscinetti dovuta alla resistenza offerta dal cuscinetto pilota, quando esso viene montato forzato nella sede del volano.</li> <li>Al primo avviamento, far girare il gruppo innestato, per almeno 10 minuti, con il motore alla meta' dei giri massimi.</li> </ol>	<ol style="list-style-type: none"> <li>Mount elastic coupling driving ring, onto engine flywheel.</li> <li>Mount pilot bearing, greased for life, onto KFB shaft.</li> <li>Mount SAE 3 flange onto flywheel housing.</li> <li>Install complete group paying attention at alignment between shaft and pilot bearing as well as alignment between rubber blocks and driving ring. External housing must be orientated to get the oil fill opening at about 60° clockwise from vertical line, looking at the flywheel. In such a way, the oil drain opening will be downwards. Therefore tighten screws of external flange. Fluid coupling oil filling (see recommended oil table). Remove cover. Turn fluid coupling until X mark be on vertical line (X-1-2-3-4 depends on application). Remove plug and fill until oil overflows (13KFB fill X=5,2 lt.). Therefore fit the plug using sealant on thread. Tightening torque is 30 Nm for 3/8" plug. Fit again the cover. Grease filling (see recommended grease table). Through the grease filler, fill grease until it comes out around the shaft.</li> <li>Rap the shaft on the end to relieve any preloading that may result due to the resistance of pilot bearing when being pressed into the flywheel.</li> <li>At first start up, run the unit engaged and engine at half of max speed for not less than 10 minutes.</li> </ol>					
<p>#6217-1 06/04/01</p>	<p>TRANSFLUID S.r.l. via V.Monti 19-20016 Pero (MI) Italy tel.0039-02-339315.1 - fax.0039-02-33910699 - www.transfluid.it - e-mail:info@transfluid.it</p>					

# 7.7 Kraft Fluid Drive Breakdown (Optional)

## Fluid Drive Coupler (Optional)



## 7.8 Kraft Fluid Drive Common Parts (Optional)

Fluid Drive Coupler (Optional)



ITEM #	PART NUMBER	DESCRIPTION
1	UU-TFP7018CC	390 Degree Fuse Plug, 5/8"
2	UU-TFP2292	Seal Kit
3	UU-8202AD	Roller Bearing
4	UU-TFP103602X	Shaft
5	UU-8002DX	Bearing, small
6	UU-8002AS	Ball Bearing
7	UU-KPC2.01.5	Fluid, 1-1/2 gallon



## 8-0

### 8.0 BLOWER HOUSING GROUP

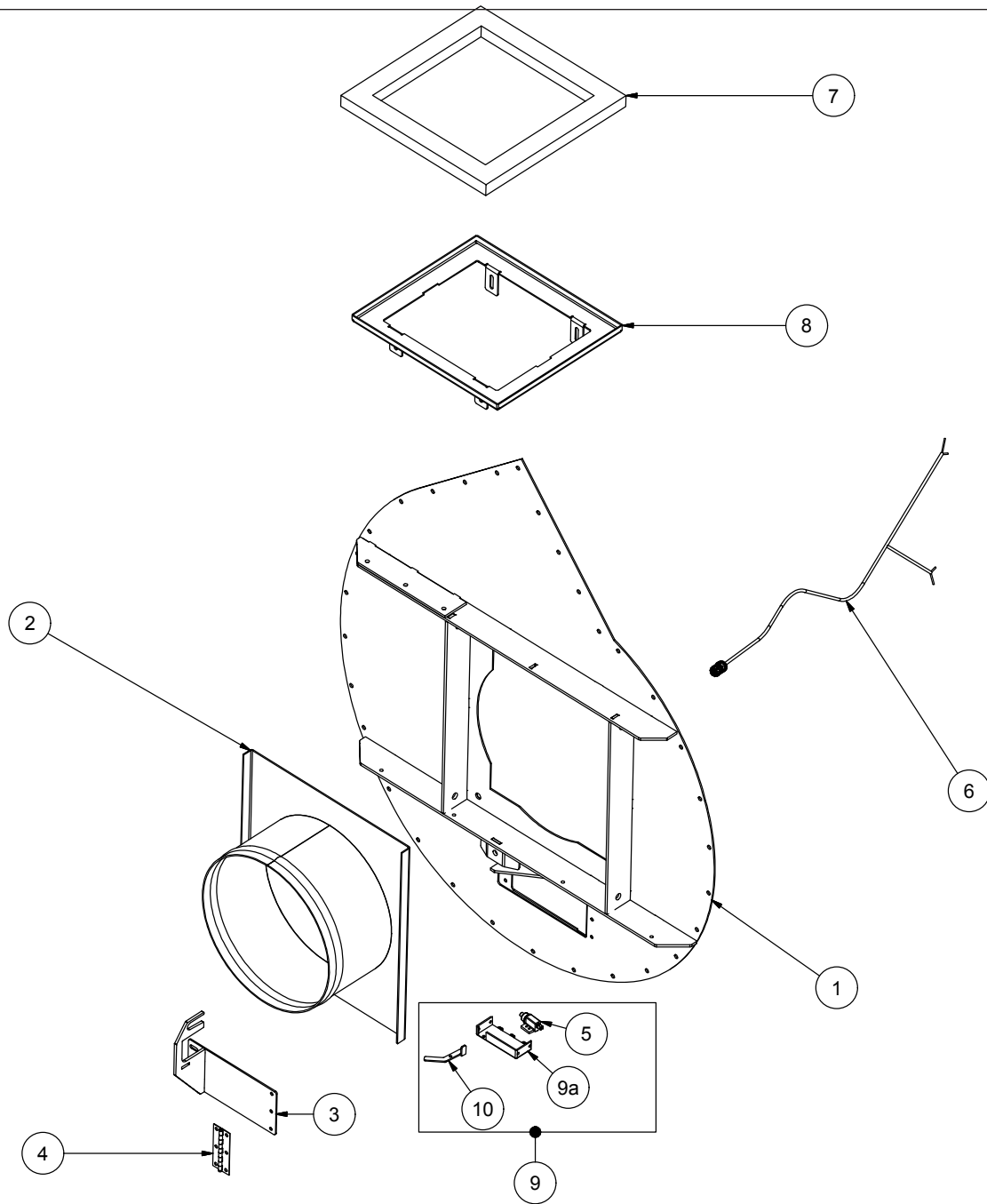
8.0 BLOWER HOUSING GROUP	
8-0 .....	119
8.1 Blower Housing Face Group .....	120
8.2 Belt Drive Assembly .....	121
8.3 Blower Housing Group - Belt Drive.....	122

**BLOWER HOUSING GROUP**

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
**800-446-9823**

# 8.1 Blower Housing Face Group

BELT DRIVE 3Axis units



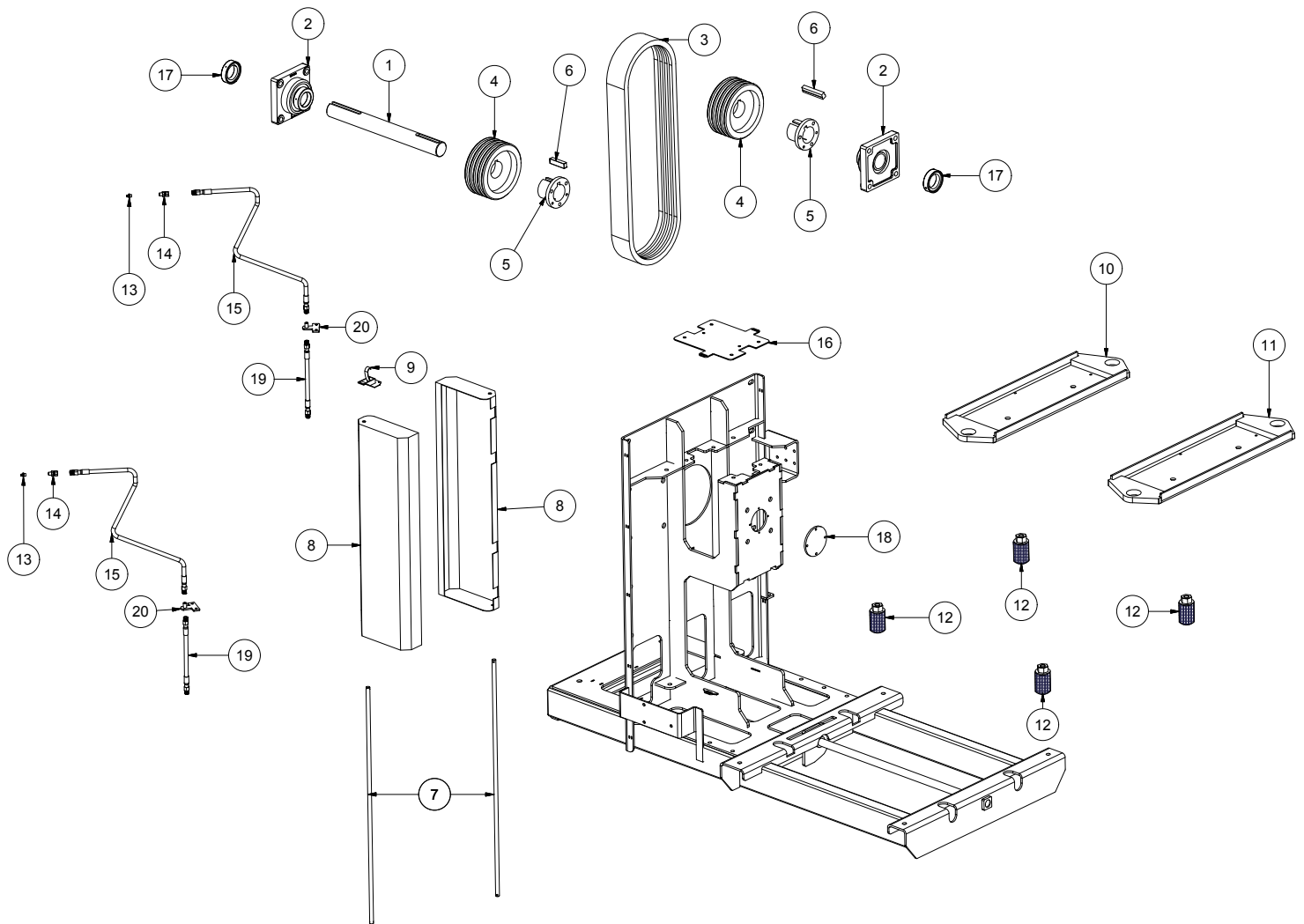
081313

ITEM #	PART NUMBER	DESCRIPTION
1	SCL621.601BD.A	Blower Housing Face, belt drive - 3X
2	SCL875.002	Intake Flange
3	SCL621.602	Inspection Door
4	LCT621.603	Inspection Door Hinge
5	LCT690.601.A	Limit Switch
6	TCC.2015B	Wiring Harness, Limit Switch, Fuel Sender
7	SCL821.817BD	Exhaust Duct Gasket, Belt Drive only
8	800.2805	Adjustable Flange (inside nose cone)- belt drive



# 8.2 Belt Drive Assembly

## Belt Drive

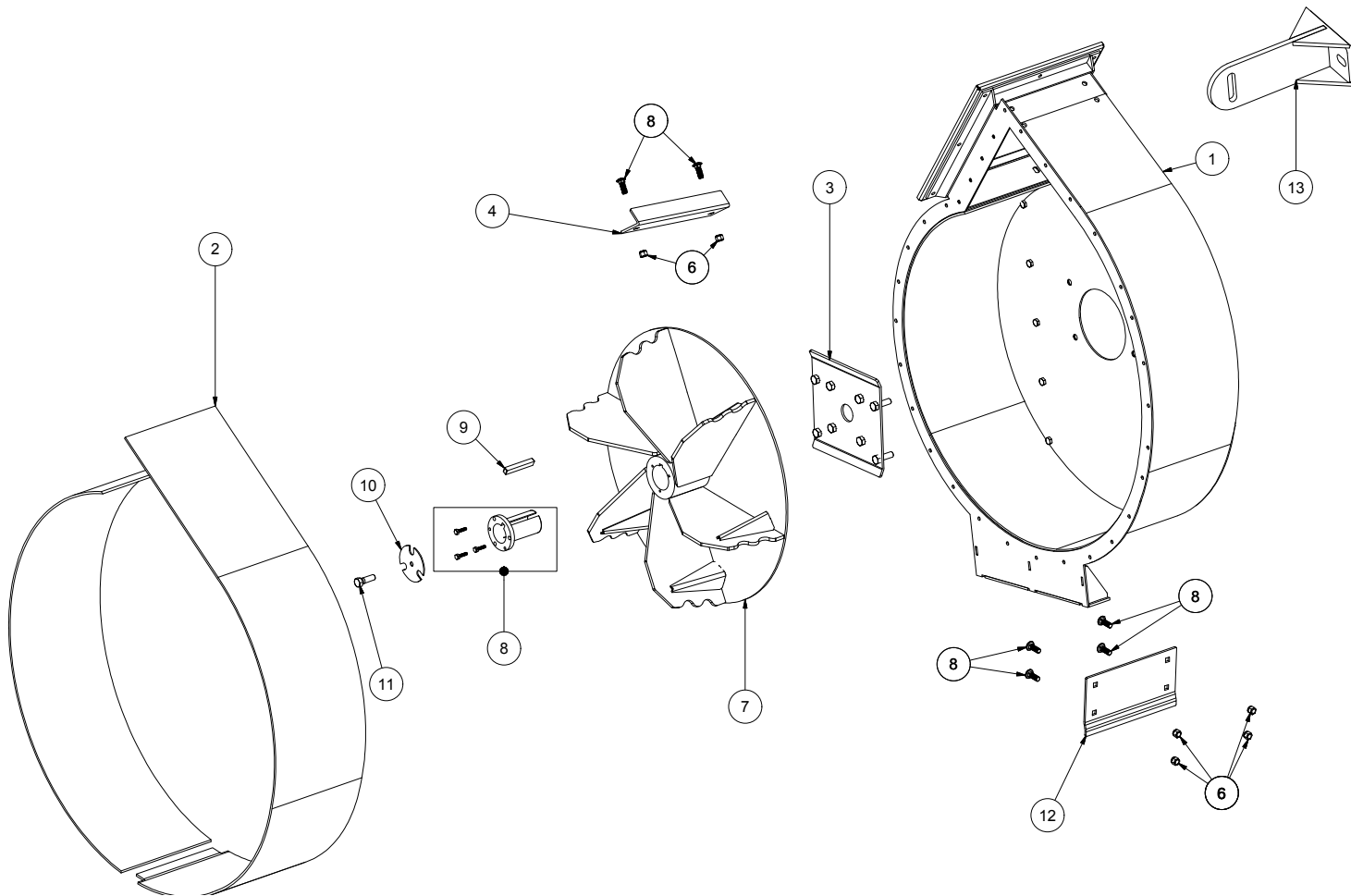


ITEM #	PART NO.	DESCRIPTION
1	800.2705A	Shaft
2	LCT650.602.A	Bearing
3	SCL850.606	Power Band
4	LCT650.603.11A	Pulley
5	LCT650.604A	Bushing
6	LCT650.601K	Step Down Key
7	800.2750A	Belt Guard Shaft
8	800.2750	Belt Guard, LH & RH
9	LCT609.602	Latch, top and bottom
10	800.2702	Engine Adaptor, Rear
11	800.2702	Engine Adaptor, Front

ITEM #	PART NO.	DESCRIPTION
12	800.2710	Jack Bolt
13	450.1412	Grease Zerk
14	450.1411	Fitting
15	TCC.2034	Grease Hose
16	800.2751	Cover Plate
17	LCT650.602.C	Bearing Collar
18	800.2730	Shaft Cover
19	UU-199.T52500H	Lube Hose, short
20	UU-199T552500B	Lube Hose Bracket

# 8.3 Blower Housing Group - Belt Drive

BELT DRIVE Units-



ITEM	PART NO.	DESCRIPTION
1	SCL620.601.BD	Blower Housing Back, Belt drive
2	LCT620.602	Liner Set
3	LCT600.602	Bearing Plate
4	LCT620.602A	Curved Liner
5	LCT620.603	Liner Bolt, 1/2-13x1-1/4 flat head
6	LCT620.603N	Liner Nut, 1/2-13 ESN
7	LCT60.33	Impeller

ITEM	PART NO.	DESCRIPTION
8	LCT650.601	Bushing with bolts
9	LCT650.601F	Key, straight
10	LCT600.615	Shaft Protector
11	5CZ.500.750	Bolt
12	LCT620.604	Straight Liner
13	800.609	Housing Support Tab



## 9-0

### 9.0 Hydraulic Group

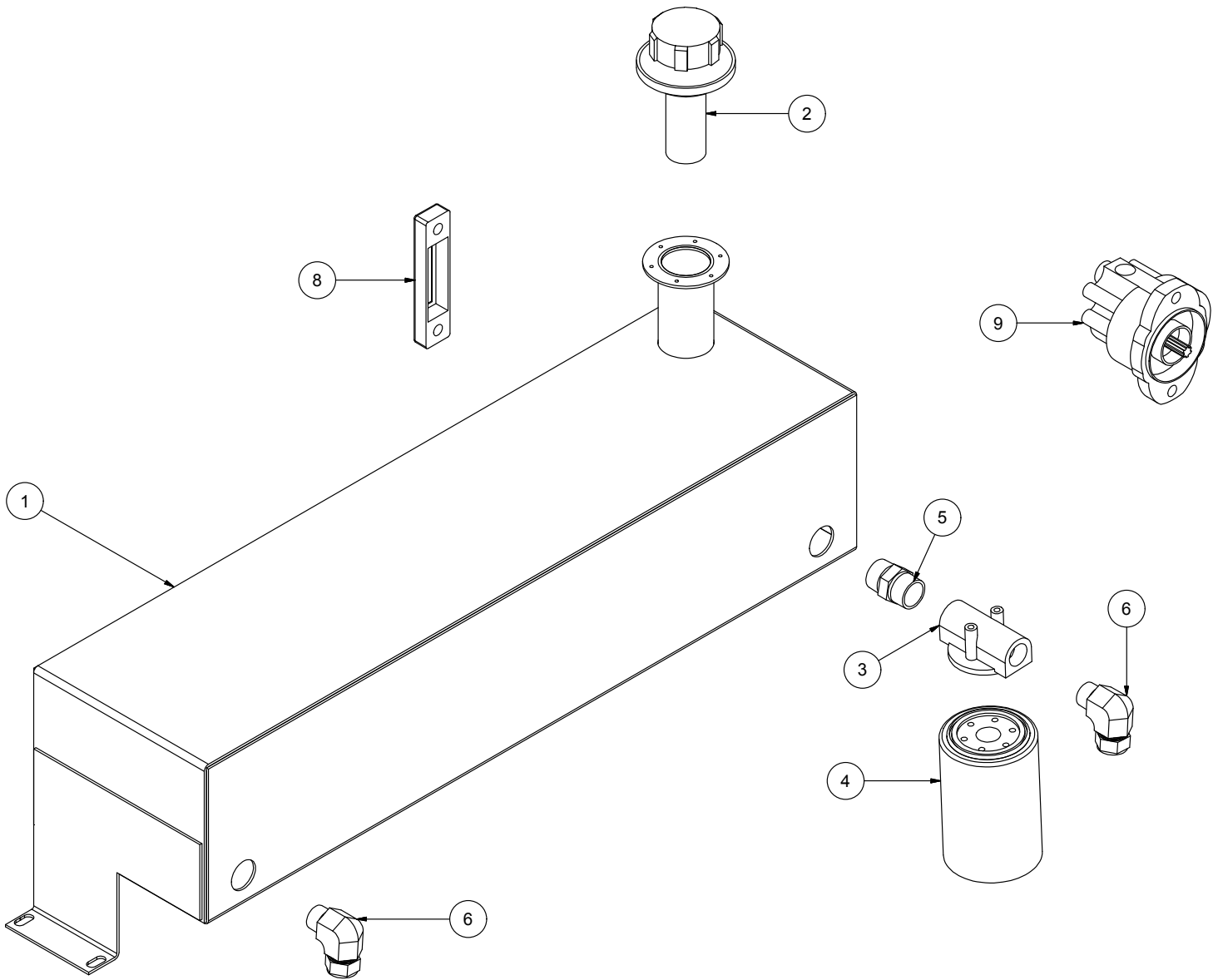
9.0 Hydraulic Group	
9-0 .....	123
9.1 Hydraulic Tank Assembly - 3X.....	124
9.2 Valve Body Group.....	125

**TRAILER GROUP**

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
**800-446-9823**

# 9.1 Hydraulic Tank Assembly - 3X

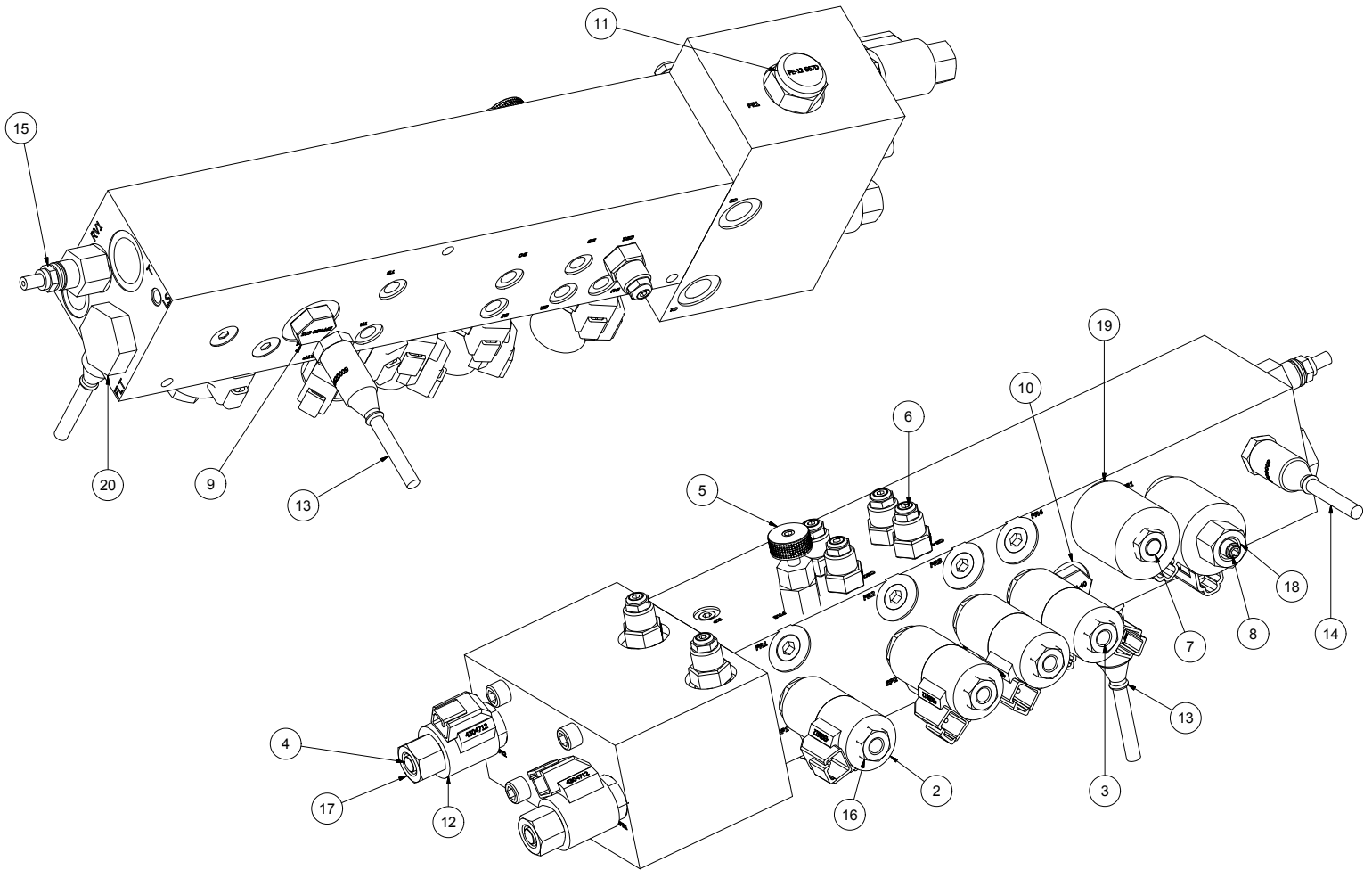
Hooklift only



ITEM #	PART NO.	DESCRIPTION
1	800.802	Hydraulic Tank
2	800.2005	Filler Cap
3	800.2003	Filter Head
4	800.2004	Hydraulic Filter
5	HYF.1010	Straight Fitting
6	HYF.1044	Fitting, 90 degree
7	HYF.1011	Fitting, 90 Degree
8	SCL.5CT1214	Site Gauge
9	SCL800.017JD	Hydraulic Pump

# 9.2 Valve Body Group

May 2010 - present



ITEM #	PART NO.	DESCRIPTION
1	TCC.1200	*Complete Valve Body (includes all below)
2	TCC.1100R	Solenoid Coil, Boom Functions
3	TCC.1100G	Control Valve
4	TCC.1100N	Pressure Reducing Valve
5	TCC.1100K	Flow Control Valve
6	TCC.1100E	Counter Balance Valve
7	TCC.1100D	Cavity Unloading Valve
8	TCC.1100C	Proportional Relief
9	TCC.1100H	Logic Valve
10	TCC.1100F	Check Valve

ITEM #	PART NO.	DESCRIPTION
11	TCC.1100M	Pilot Operated Valve
12	TCC.1100S	Coil, Dump Functions
13	TCC.2009	Hydr. Pressure Sensor
14	TCC.2007	Temperature Sensor
15	TCC.1200C	Relief Valve
16	TCC.1100T	Nut
17	TCC.1100U	Nut
18	TCC.1100V	Nut
19	TCC.1100Q	Coil
20	TCC.1200D TCC.1200E	Plug (Bolt) Screen



# 10-0

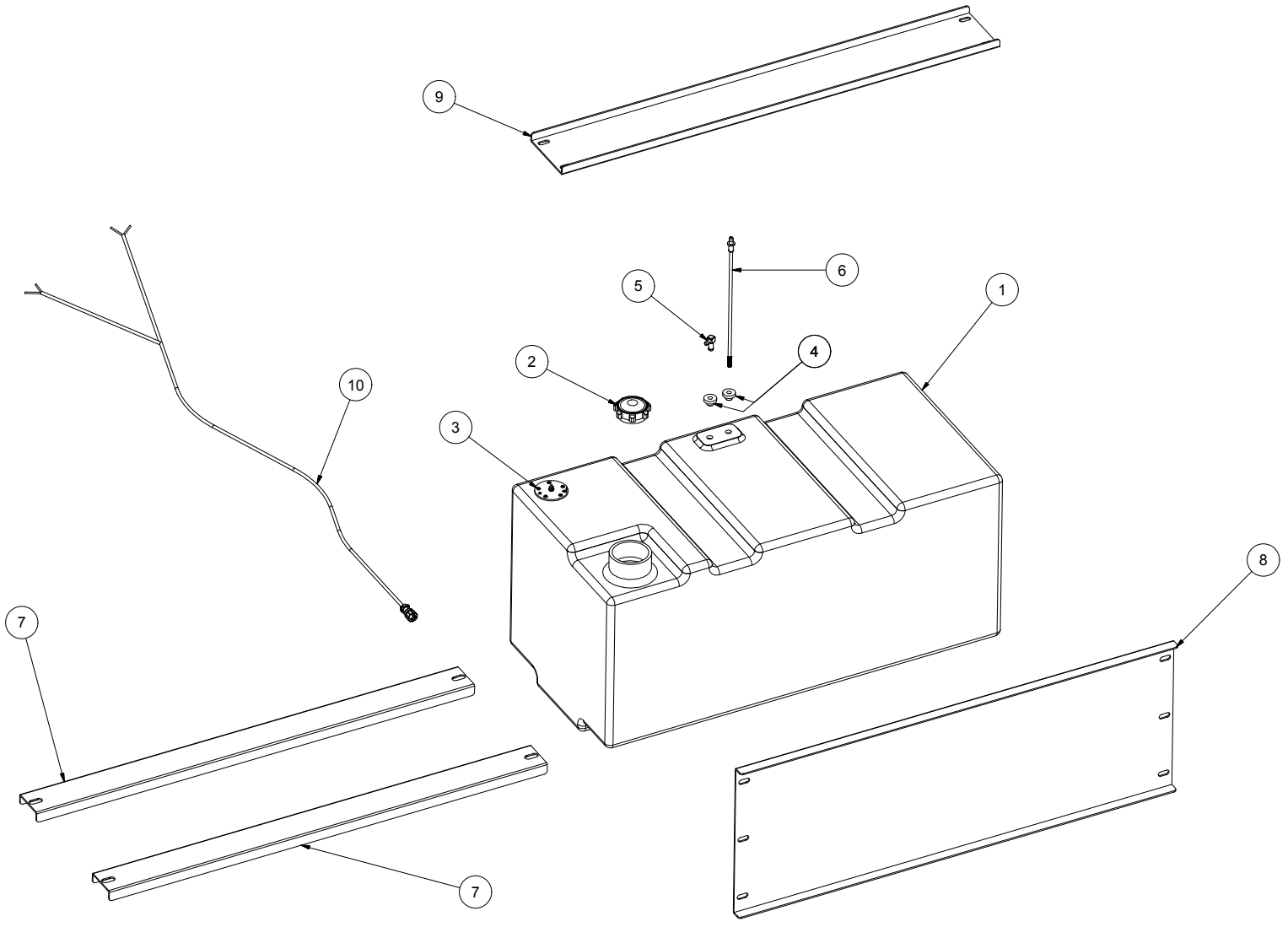
## 10.0 Chassis and Hopper Group

10.0 Chassis and Hopper Group	
10-0 .....	126
10.1 Fuel Tank Group .....	127
10.2 Box Container Screens.....	128
10.3 Proximity Switch Group .....	129
10.4 Light and Reflector Group .....	130
10.5 Box Interior Group.....	131
10.6 Automated Door Latch Group .....	132
10.7 Hook Lift Wiring Harnesses Group .....	133
10.8 Manual Top Hinged Door (Optional).....	134
10.9 Bottom Exhaust Group (Optional).....	135
10.10 Hood Scoop Group (Optional).....	136
10.11 Chipper Door Group (Optional).....	137
10.12 Light Bar Group (Optional) .....	138
10.13 Backup Camera Group (Optional).....	139

**TRAILER GROUP**

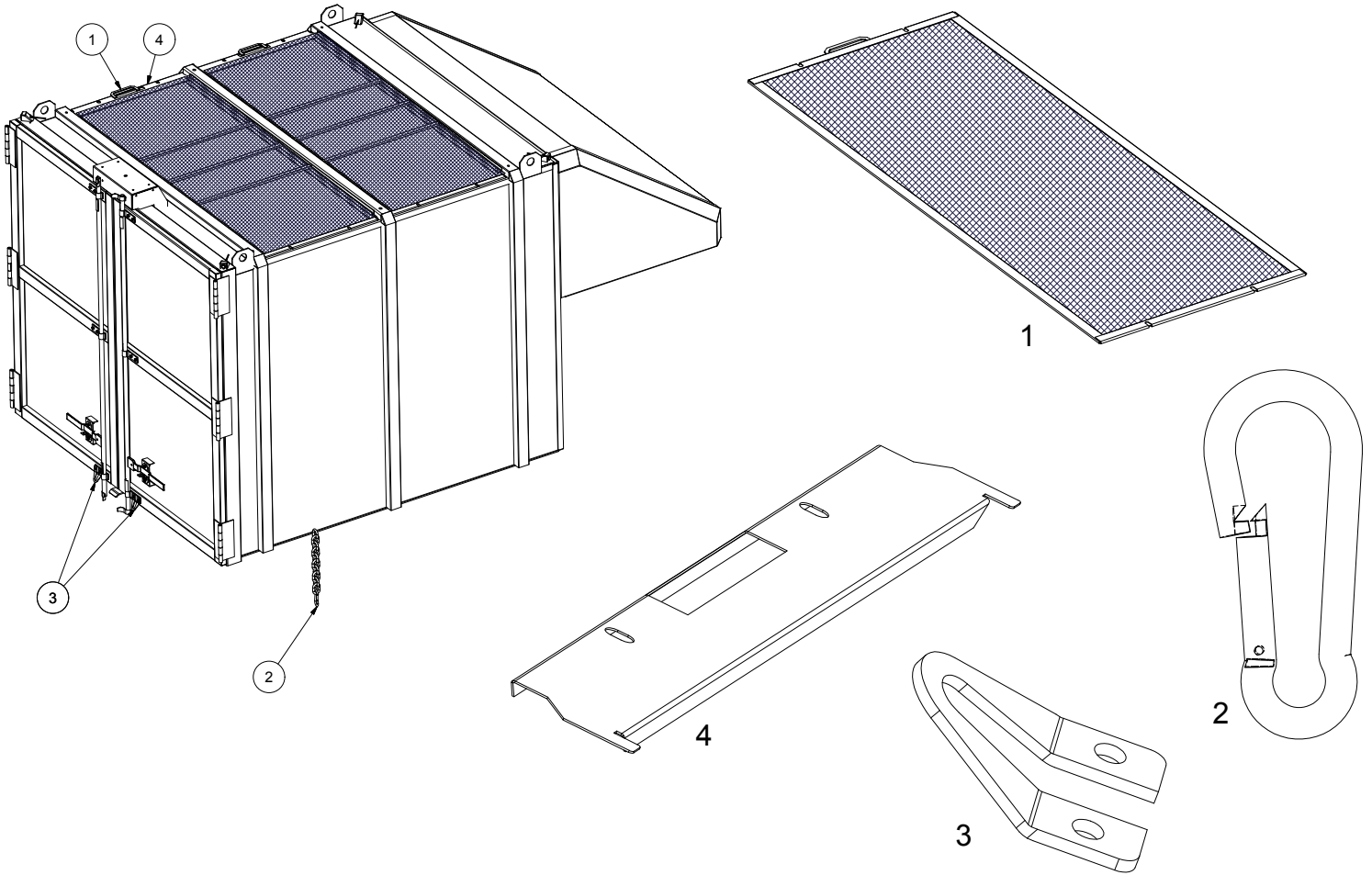
**ODB COMPANY**  
**5118 Glen Alden Drive**  
**Richmond, VA 23231**  
**800-446-9823**

# 10.1 Fuel Tank Group



ITEM #	PART NUMBER	DESCRIPTION
1	800.3501	Fuel Tank, (includes #2 - 6)
2	800.3502	Fuel Cap
3	██████████ 9341A7000	Fuel Sender I010113S - 2016 & later
4	MET633.901M	Grommet
5	MET633.901	Fuel Fitting, not pick up
6	800.2527	Fuel Fitting Pickup tube and screen
7	800.3506	Tank Support Bracket, Bottom
8	800.3504	Tank Support Bracket, Front
9	800.3505	Tank Support Bracket, Top
10	800.2506B	Fuel Tank Wiring Harness

## 10.2 Box Container Screens



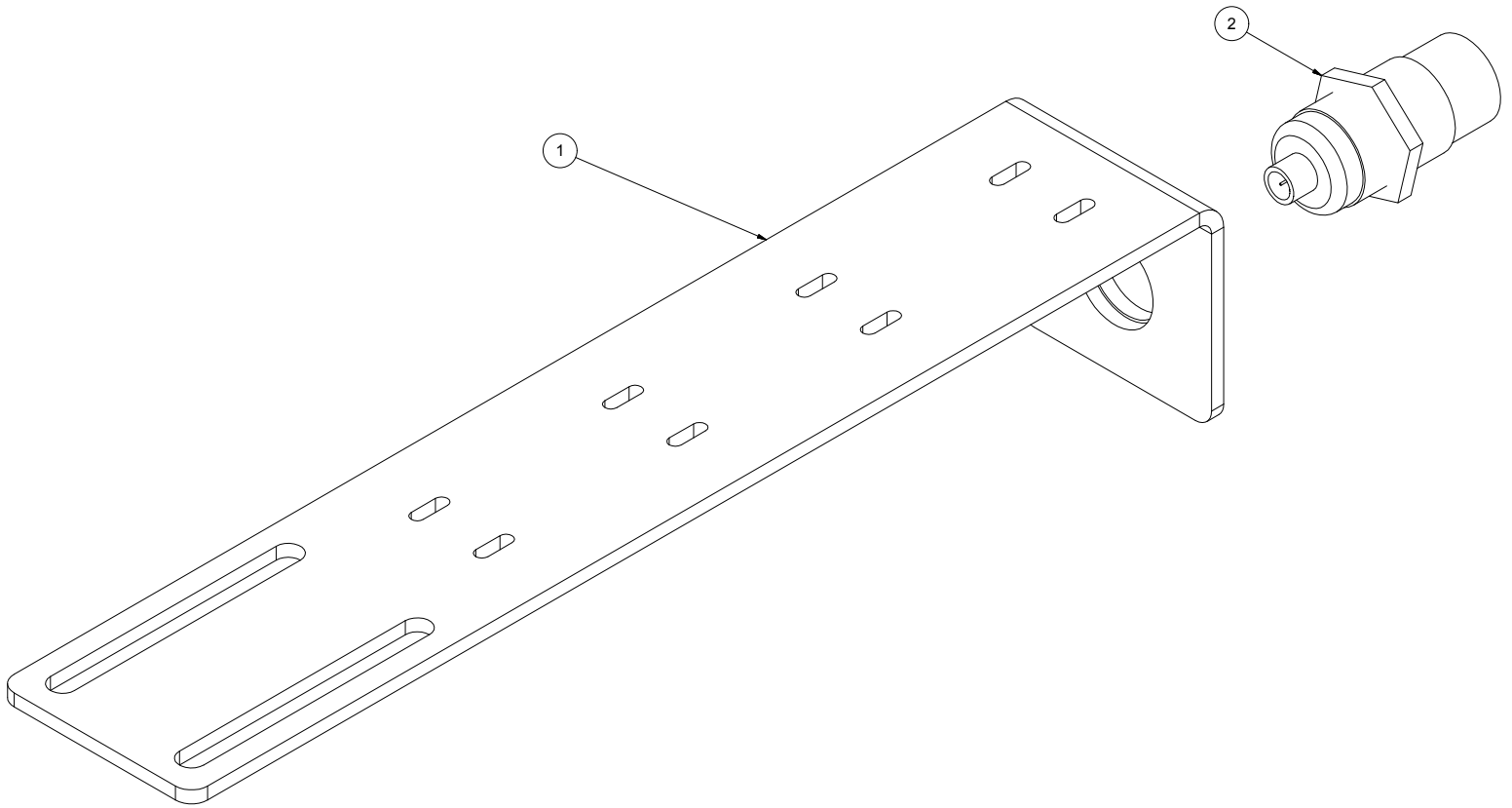
091913

ITEM #	PART NUMBER	DESCRIPTION
1	SCL805.810	Screen, 2 required for 14/20 CY 3 required for 25/30 CY
	SCL805.810M	Replacement mesh screen, 36"W x 100' roll
2	OD-200008	Spring Clip
3	OD-7502.99	Lock down bracket
4	OD-800.2807	Screen Retainer



# 10.3 Proximity Switch Group

Hook Lift

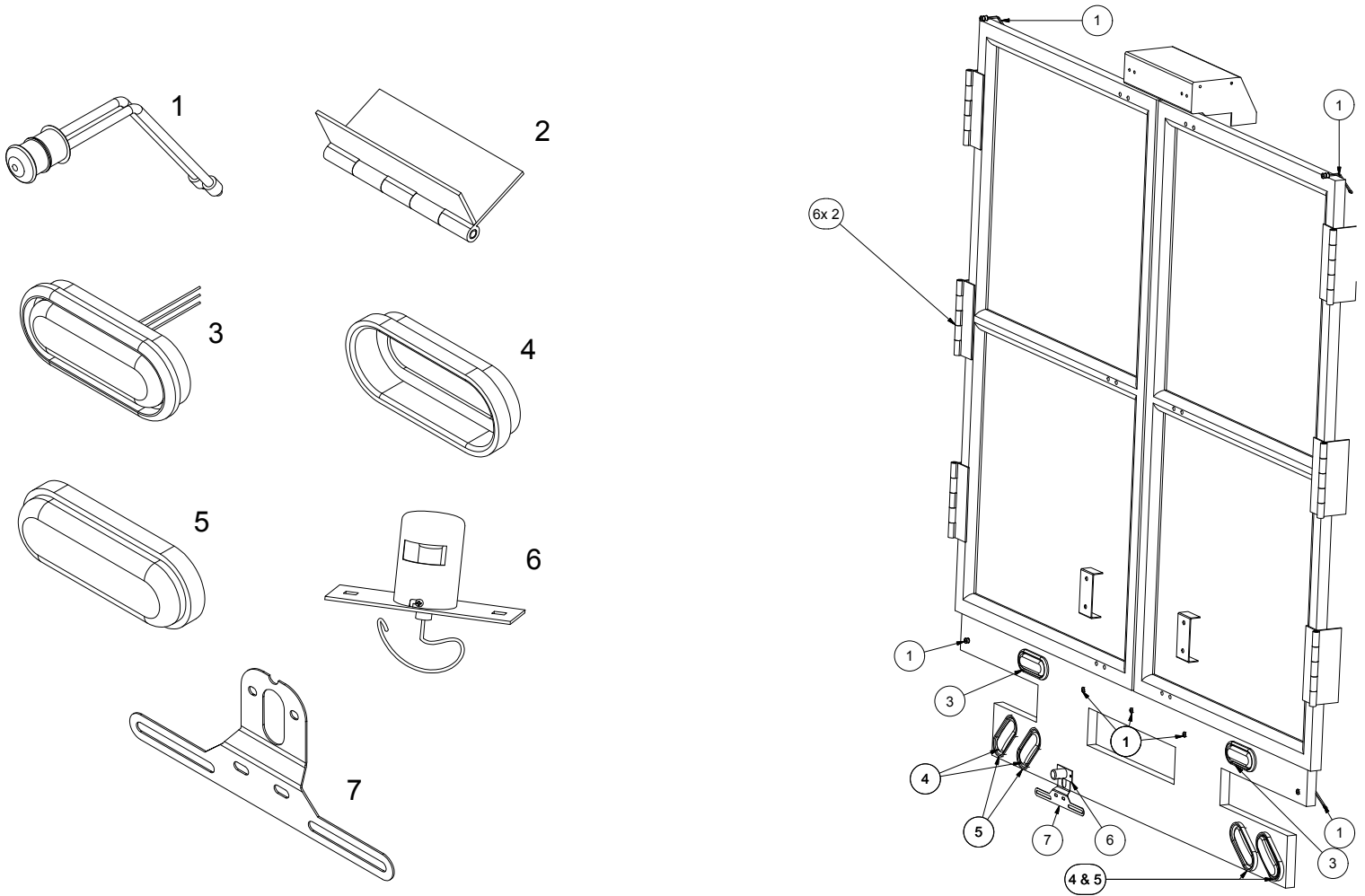


ITEM #	PART NUMBER	DESCRIPTION
1	800.439	Proximity Switch
2	800.440	Switch Bracket

022213

# 10.4 Light and Reflector Group

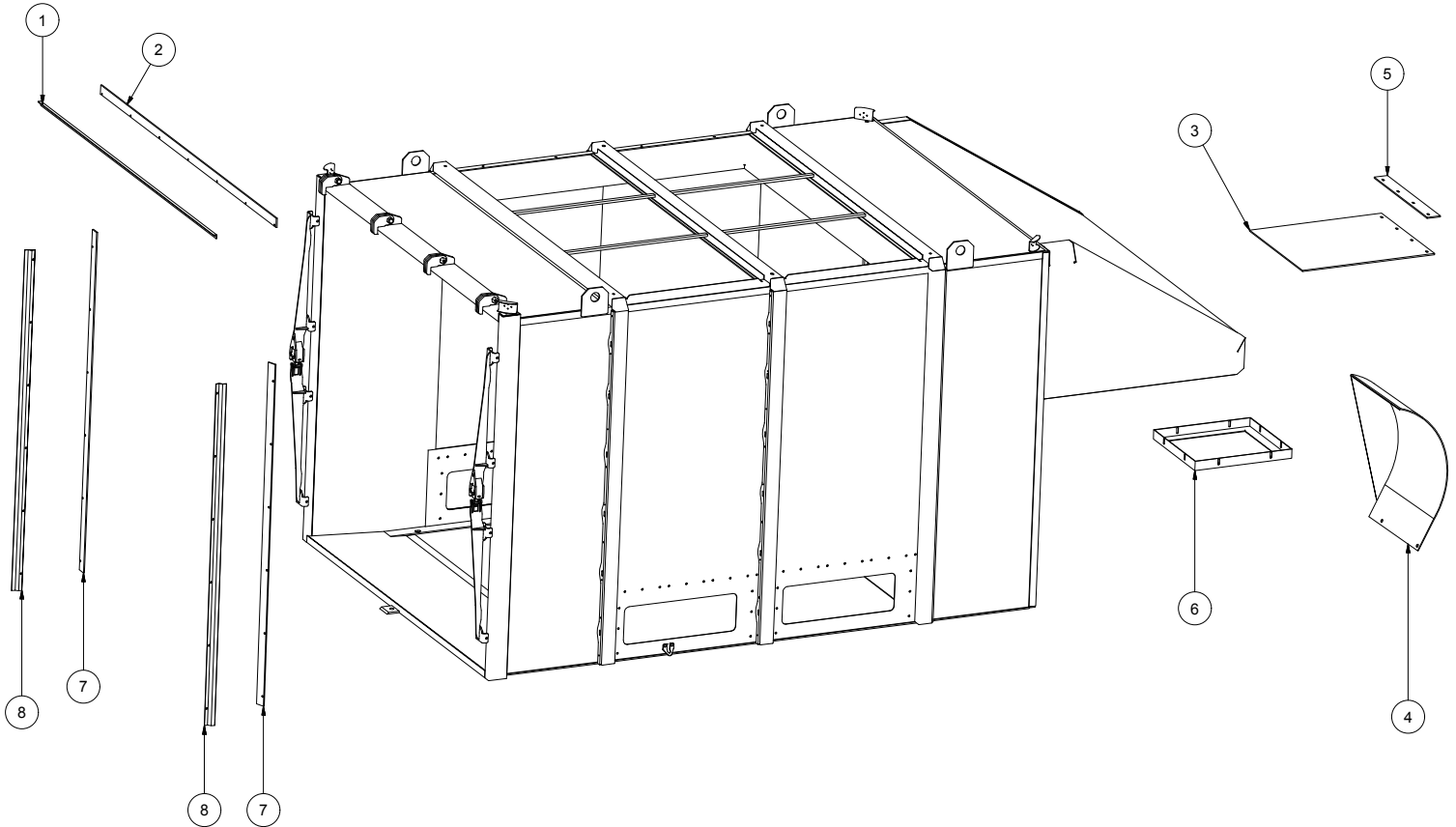
April 2009 and after



ITEM #	PART NUMBER	DESCRIPTION
1	STD.2201 STD.2202	LED Marker Light, Red-- rear of unit LED Marker Light, Yellow-- front of unit
2	SCL800.028	Door Hinge
3	STD.2213.A	LED Strobe Light with Flasher
4	STD.2414	LED Tail Light Assembly (after 01/05)
	94706	Plug Harness (after 01/05)
5	60700	Oval Grommet for tail light
6	LCT60.615B	License Plate Light
7	LCT600.010	License Plate Bracket

# 10.5 Box Interior Group

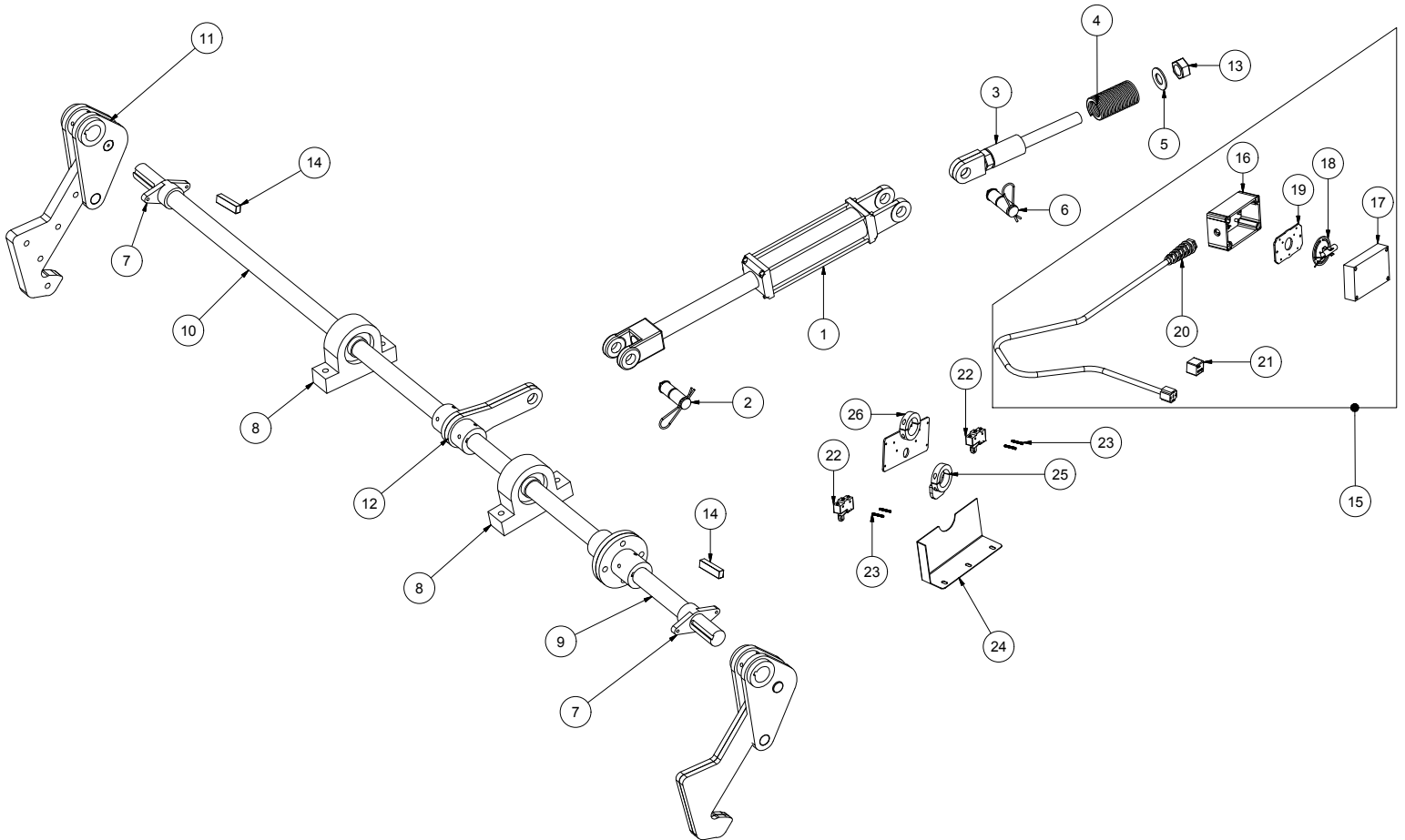
2007 and after



ITEM #	PART NUMBER	DESCRIPTION
1	SCL800.034	Door Seal Bracket, L-shaped; bolts to <u>welded</u> piece on box
2	SCL800.030	Door Seal Rubber
3	SCL800.811	Deflector Rubber
4	SCL800.880.B SCL800.880.D SCL800.880.BBE SCL800.880.DBE	Nose Cone Liner (Belt Drive) Nose Cone Liner (Direct Drive) Nose Cone Liner (Belt Drive w/Bottom Exhaust) Nose Cone Liner (Direct Drive w/Bottom Exhaust)
5	SCL800.881	Deflector Rubber Retainer
6	800.2805	Nose Cone Adjustable Insert - BELT DRIVE UNITS ONLY, used July 2005 and after
7	SCL800.035	Door Seal Bracket - vertical
8	SCL800.030	Door Seal Rubber - vertical, same as #2

# 10.6 Automated Door Latch Group

January 2007 and after

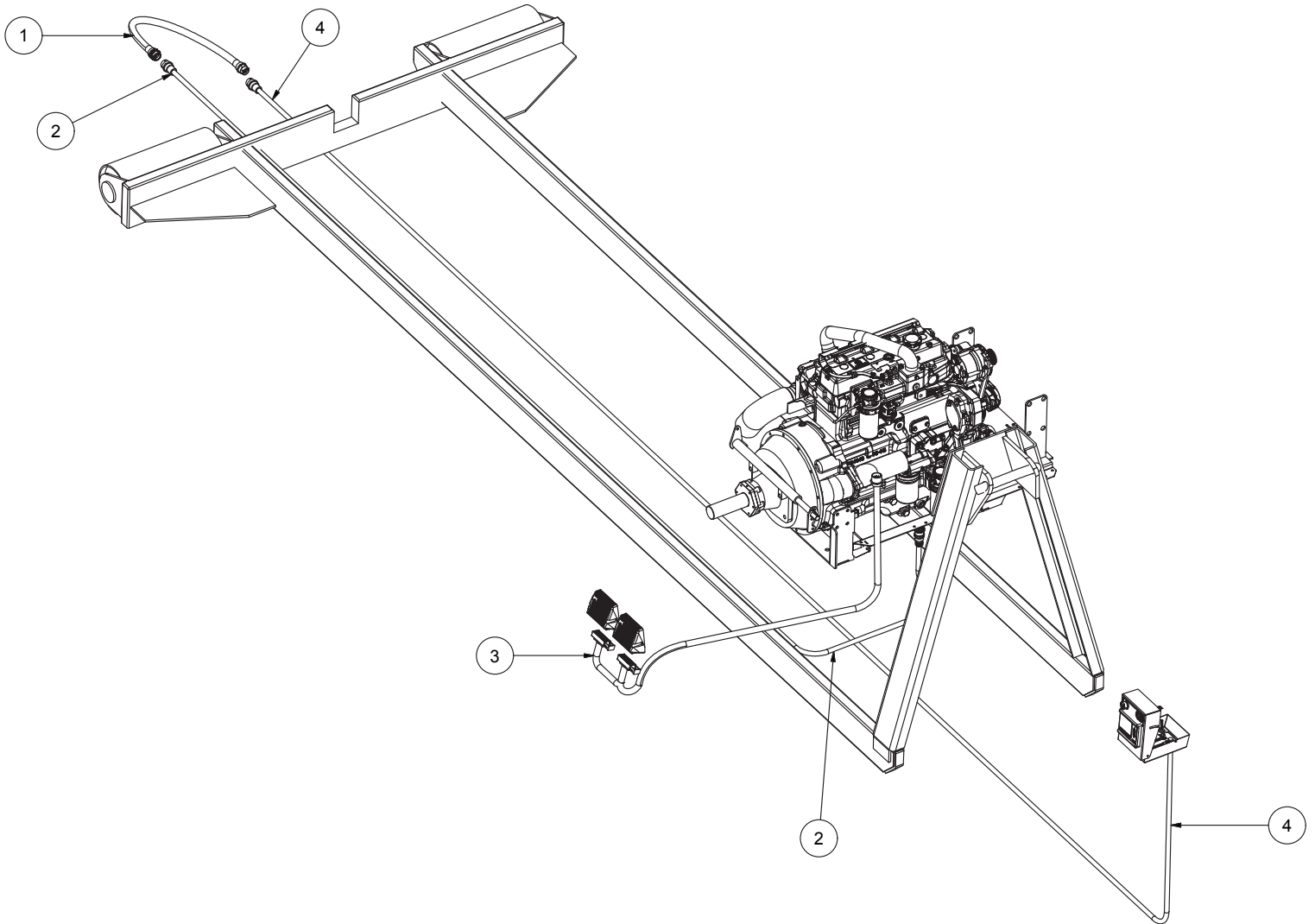


ITEM#	PART NO.	DESCRIPTION	ITEM#	PART NO.	DESCRIPTION
1	800.401	Hydraulic Cylinder	15	800.425	Mercury Switch Assy
2	800.408	Pin			includes 16 - 21 below
3	800.419	Cylinder Guide	16	800.426	Switch Box
4	800.410	Spring	17	800.427	Switch Cover
5	800.411	Washer	18	800.428	Mercury Switch
6	800.412	Pin	19	800.429	Back Plate
7	800.406	Flange Bearing, 2 bolt	20	800.430	Wiring Harness
8	800.407	Pillow Block Bearing	21	800.431	Relay
9	800.402	Actuator Shaft, short	22	800.433	Limit Switch
10	800.403	Actuator Shaft, long	23	800.434	Bolt
11	800.404	Hook Assembly	24	800.435	Switch Cover
12	800.405	Center Pivot Arm	25	800.436	Switch Actuator Cam
13	800.413	Nut	26	800.432	Limit Switch Plate
14	800.414	Key, Hook Assembly			

\*Note: Item #21 is on NON Computer models only

# 10.7 Hook Lift Wiring Harnesses Group

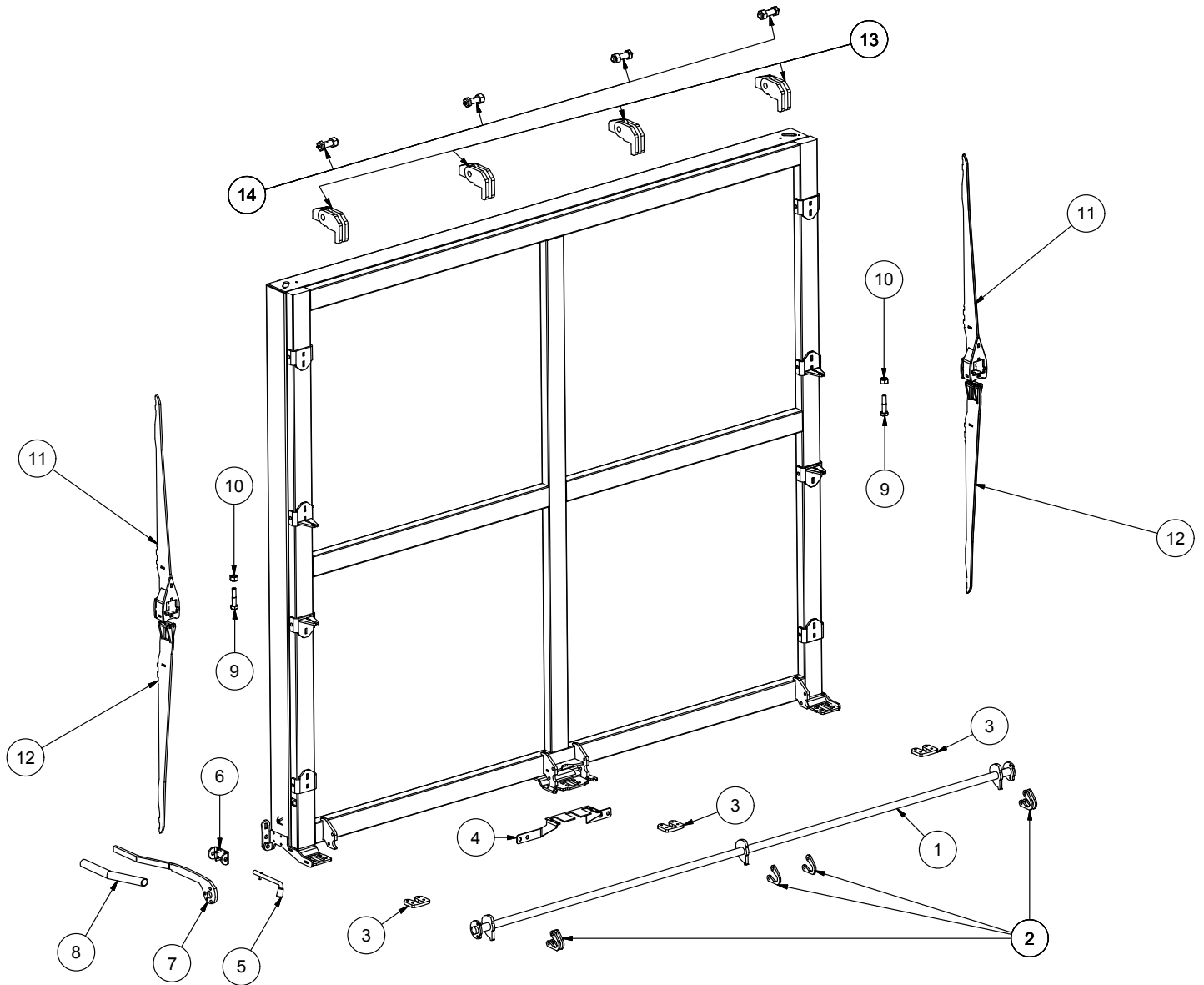
## Hooklift



ITEM #	PART NUMBER	DESCRIPTION
1	TCC.2042	Jumper Harness
2	TCC.2041	Chassis Harness, Rear of Truck to Engine Side Rail
3	TCC.2012	Module Harness
4	TCC.2040	Truck Harness, Screen to Rear of Truck

# 10.8 Manual Top Hinged Door (Optional)

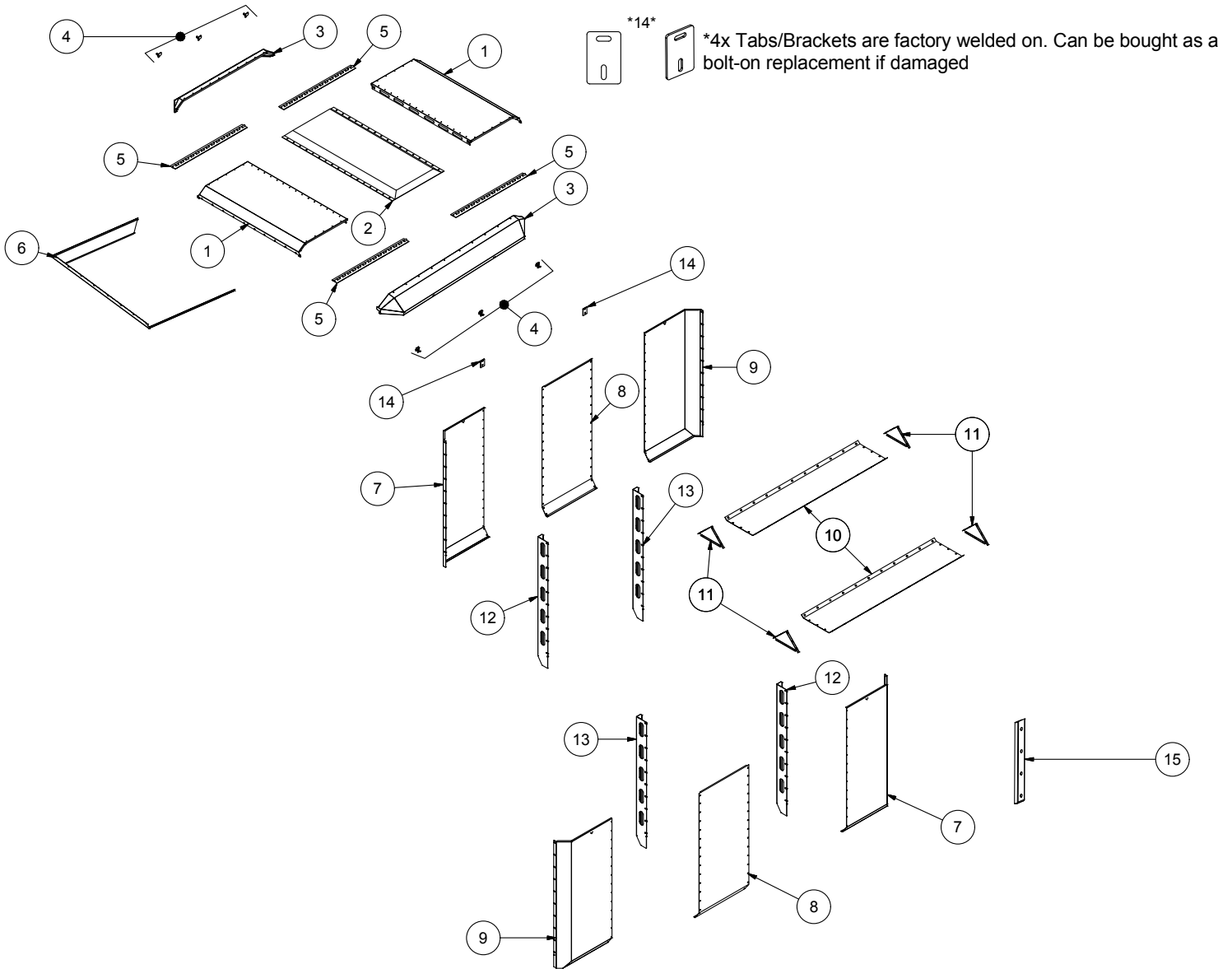
OPTIONAL



ITEM#	PART NO.	DESCRIPTION	ITEM#	PART NO.	DESCRIPTION
*		Top Hinge Door - (Items 1 - 7)	8	800.2932	Handle Grip
1	800.2825	Door Rod	9	800.2933	Truss Bolt
2	800.2826	Rod Holder	10	800.2934	Truss Nut
3	800.2827	Slide Pad	11	800.2935	Top Truss
4	800.2828	Center Gusset	12	800.2936	Bottom Truss
5	800.2829	Door Latch Pin	13	800.2940	Hinge Set
6	800.2930	Door Latch Base	14	800.2937	Hinge Bolt
7	800.2931	Handle			

# 10.9 Bottom Exhaust Group (Optional)

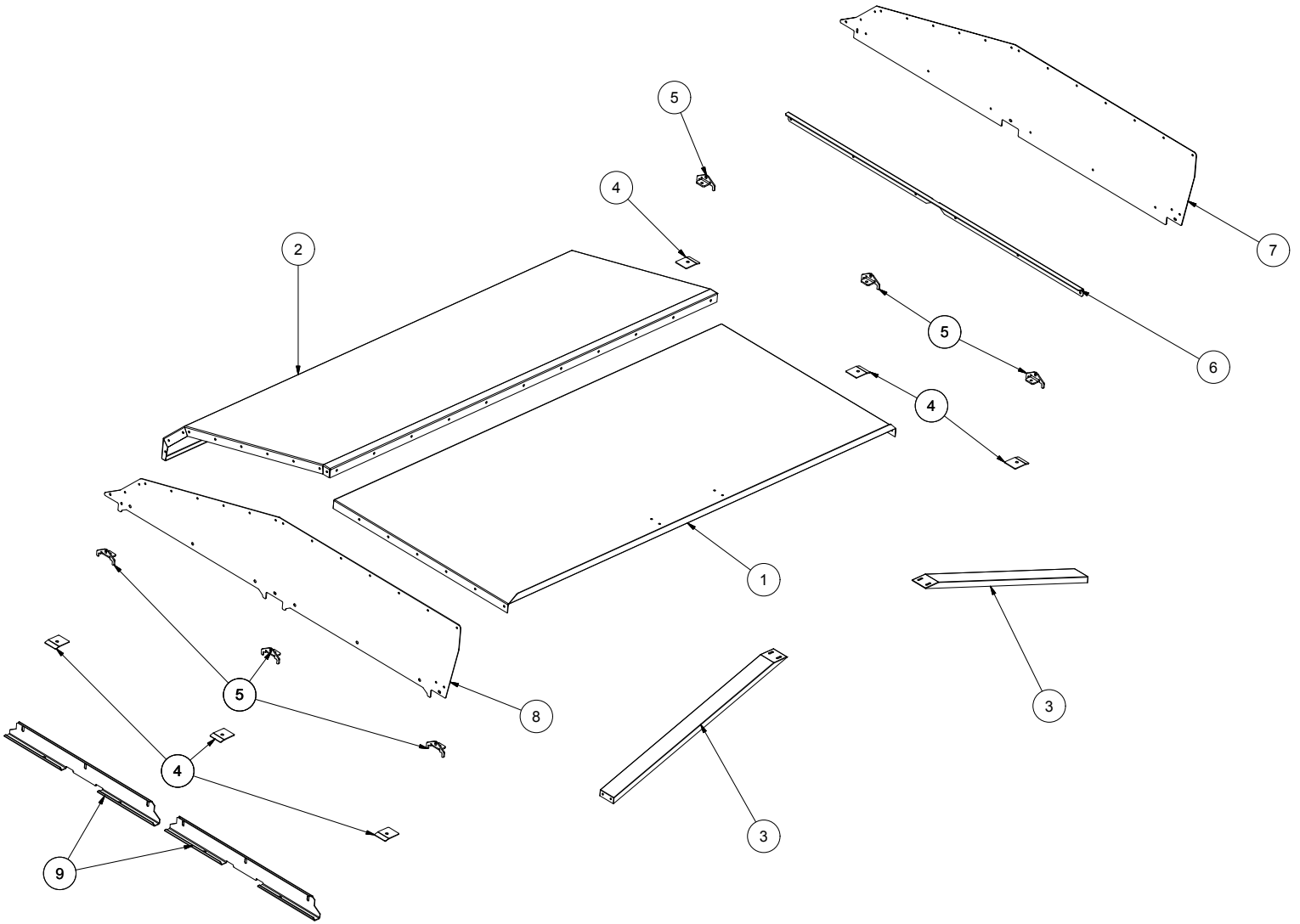
OPTIONAL



ITEM#	PART NO.	DESCRIPTION	ITEM#	PART NO.	DESCRIPTION
*	SCL800.BE	Bottom Exhaust Complete	9	800.2903	Side Panel, LH
1	800.2905	Top Panel	10	800.2911	Hopper Pan Long (inside box)
2	800.2906	Top Panel, Center 25CY only	11	800.2912	Hopper Pan Brace Plate (inside box)
3	800.2904	Screen Door	12	800.2909	Side Panel Flange, RH
4	LCT609.602	Latch	13	800.2908	Side Panel Flange, LH
5	800.2907	Hinge	14	8BXOH.001B	Tab/Bracket
6	800.2914	Air Deflector Skirt (welded on)	15	550.1830	Bumper Guard
7	800.2901	Side Panel, RH			
8	800.2902	Center Side Panel, 25CY only			

# 10.10 Hood Scoop Group (Optional)

OPTIONAL

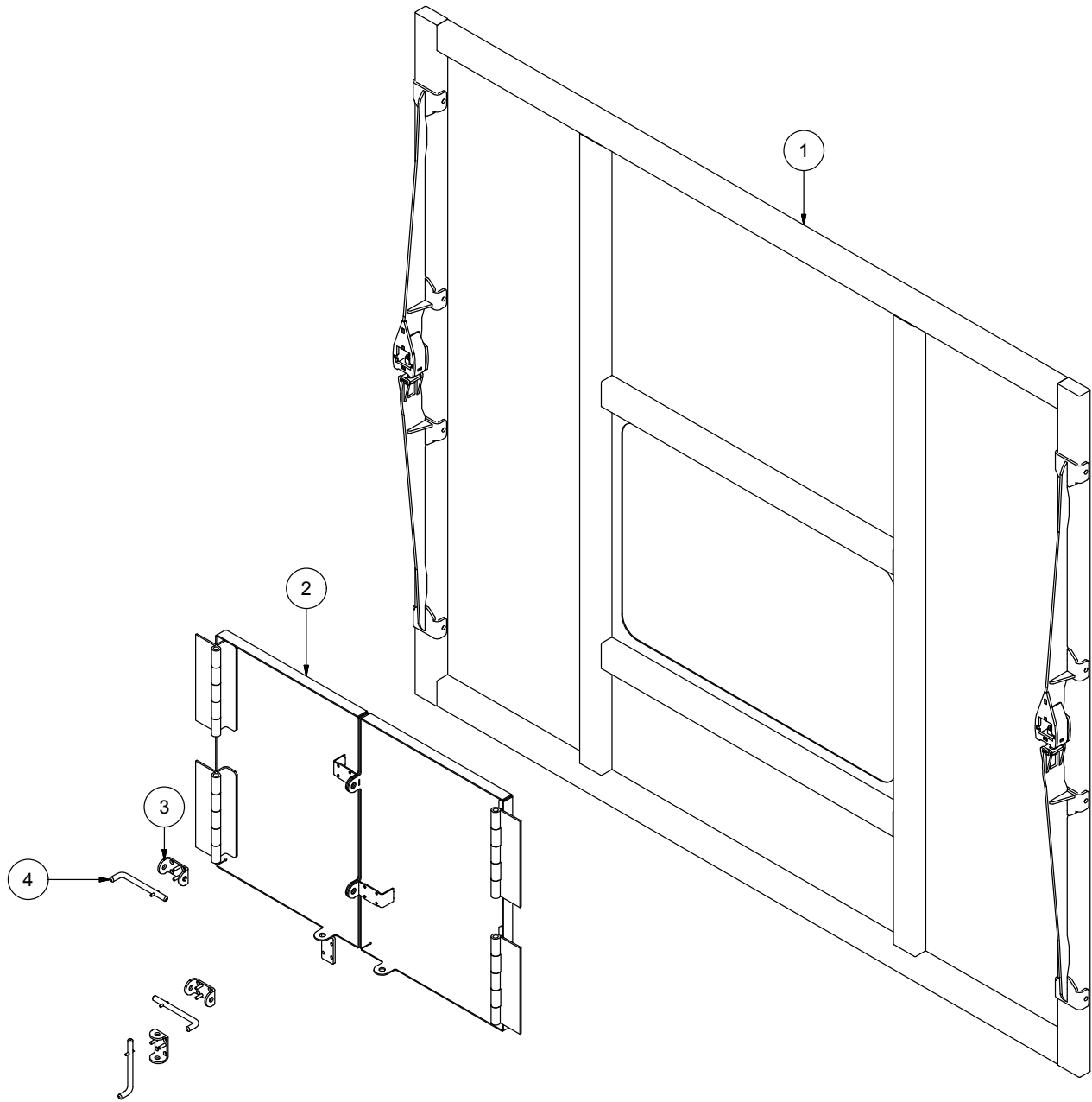


ITEM#	PART NO.	DESCRIPTION
*	SCL800.029	Complete Assembly
1	800.1905	Rear Panel
2	800.1902	Front Panel
3	800.1903	Cross Brace
4	800.1906	Hat Channel Nut
5	800.1901	Hat Channel Bracket
6	800.1904	Side Stiffener
7	800.1902L	Side Panel Left Hand
8	800.1902R	Side Panel Right Hand
9	800.1907	Screen Retainer



# 10.11 Chipper Door Group (Optional)

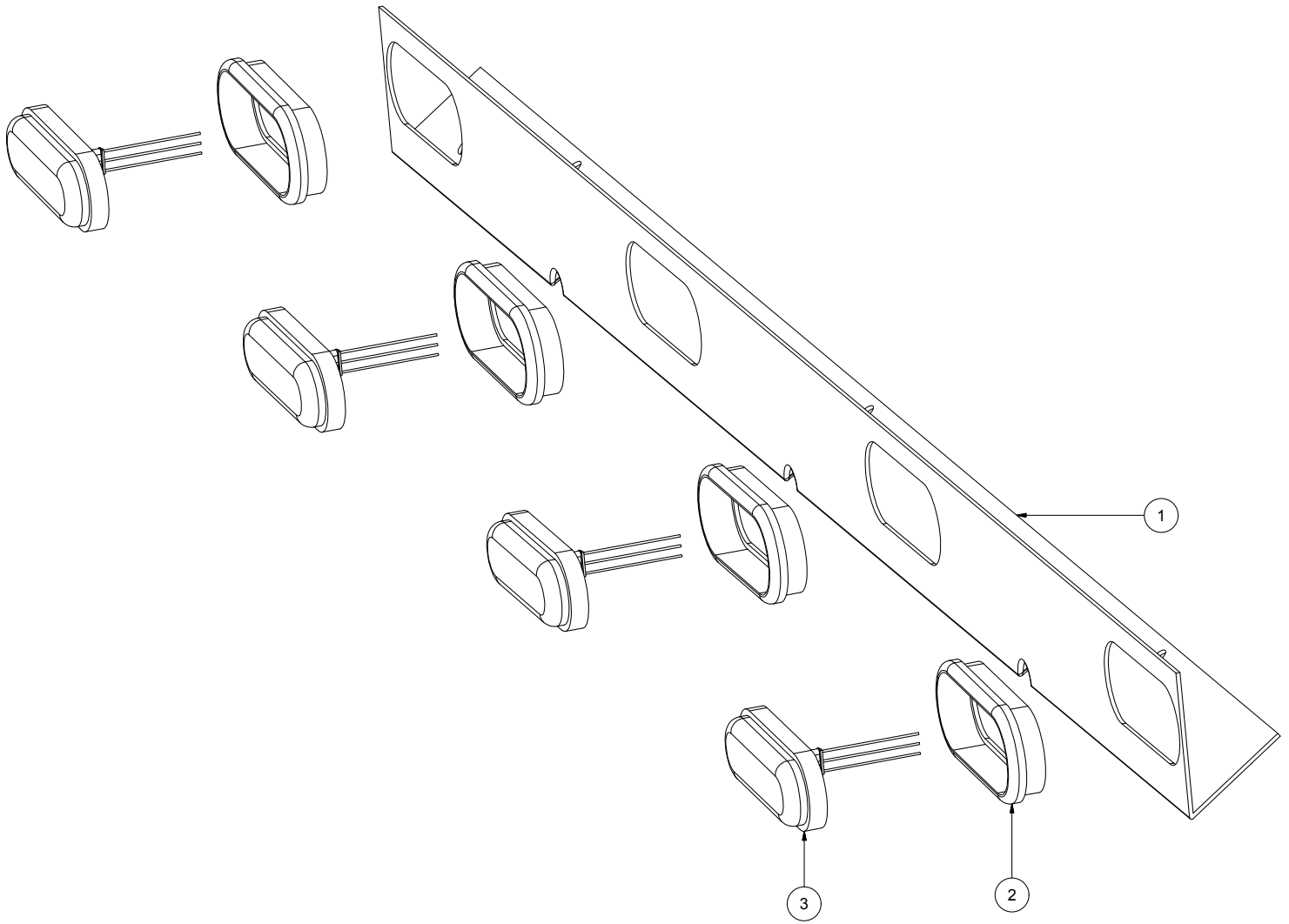
OPTIONAL



ITEM #	PART NUMBER	DESCRIPTION
1	8X-THDCH	Door Assembly, Chipper Style only
2	800.800	Chipper Access Door
3	800.2712	Pin Bracket (comes with #6 pin) - not sold separately
4	800.2712	Pin (comes with #5 bracket) - not sold separately
NS	SCL800.800	Blower Exhaust Cover

# 10.12 Light Bar Group (Optional)

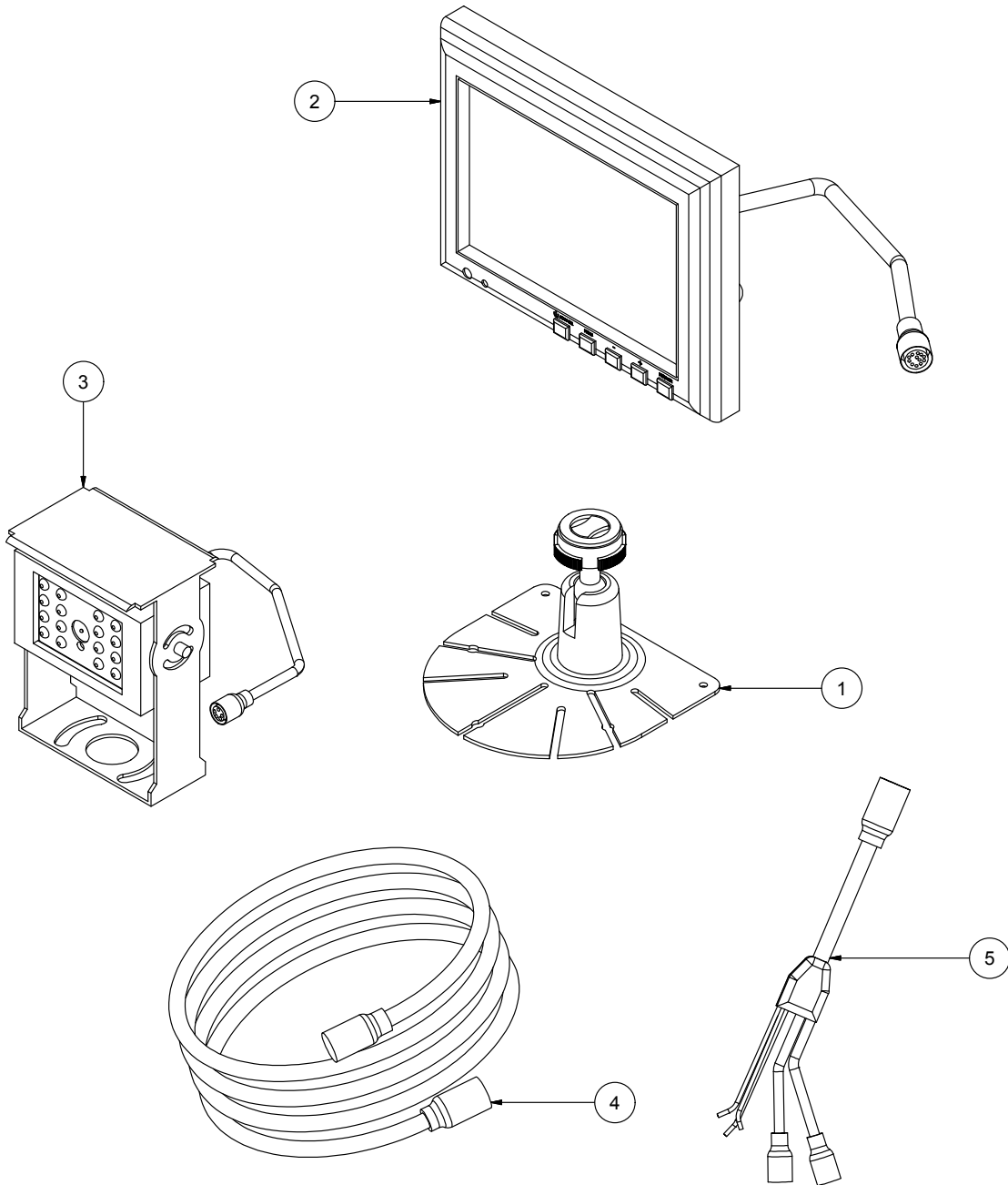
OPTIONAL



ITEM #	PART NUMBER	DESCRIPTION
1	550.008	Light Bar Bracket
2	660700	Grommett
3	STD.2414	Strobe Light Assembly

# 10.13 Backup Camera Group (Optional)

OPTIONAL - Sony



ITEM #	PART NUMBER	DESCRIPTION
*	UU-UU56-NTSC-2	Complete Assembly
1		Monitor Mounting Bracket
2		LCD Monitor
3		Camera
4		Camera to monitor Harness
5		Input Wiring Harness



# 11-0

## 11.0 HOSE BOOM GROUP

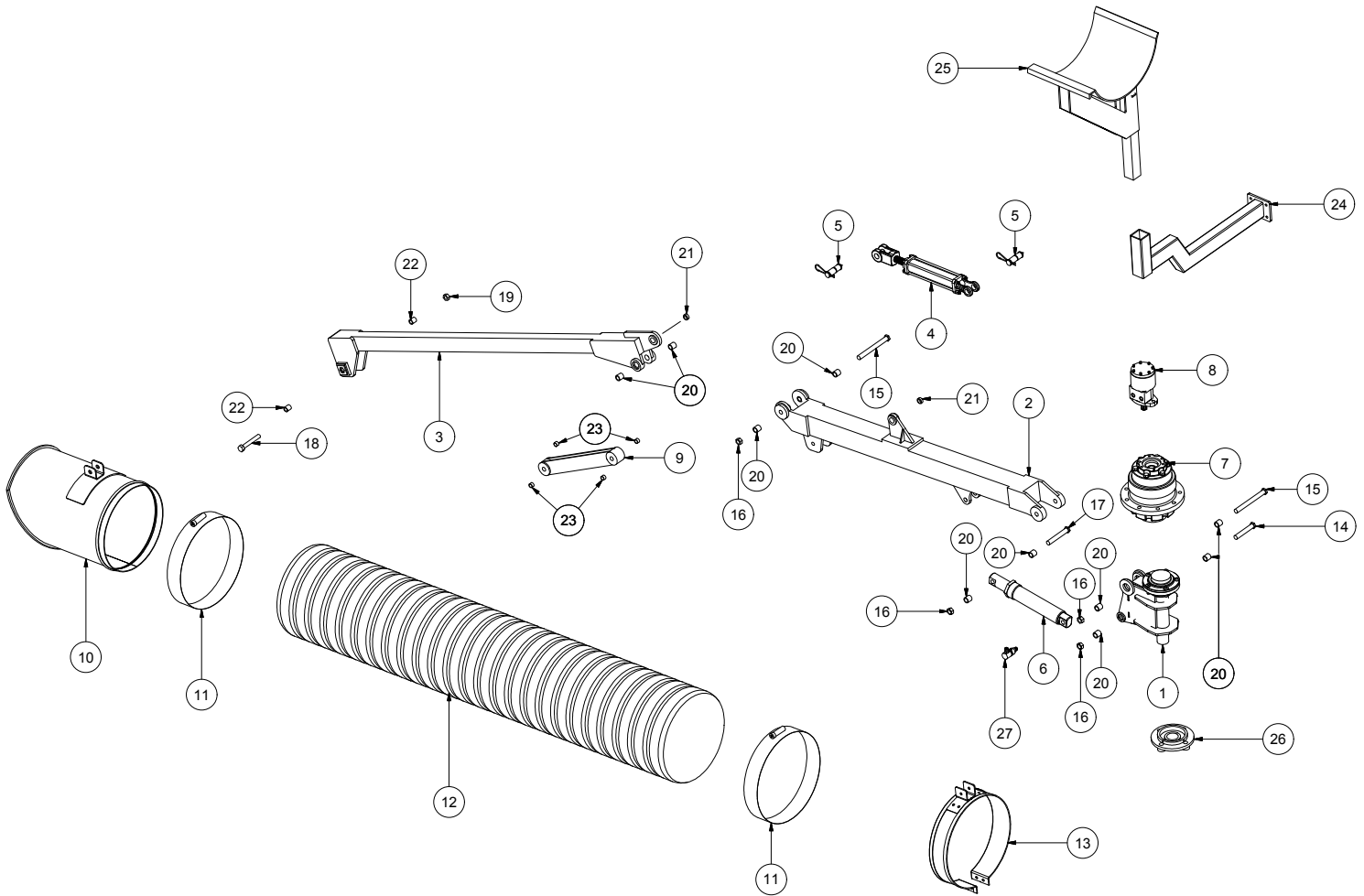
11.0 HOSE BOOM GROUP	
11-0 .....	140
11.1 Boom Assembly, 3 Axis .....	141
11.2 Hinged Boom Frame Assembly - 3 Axis .....	142
11.3 Auburn Gear Drive Assembly - 3 Axis .....	143
11.4 In-Cab Controls Mount - 3 Axis .....	144
INDEX	
Index .....	146

**HOSE BOOM GROUP**

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
**800-446-9823**

# 11.1 Boom Assembly, 3 Axis

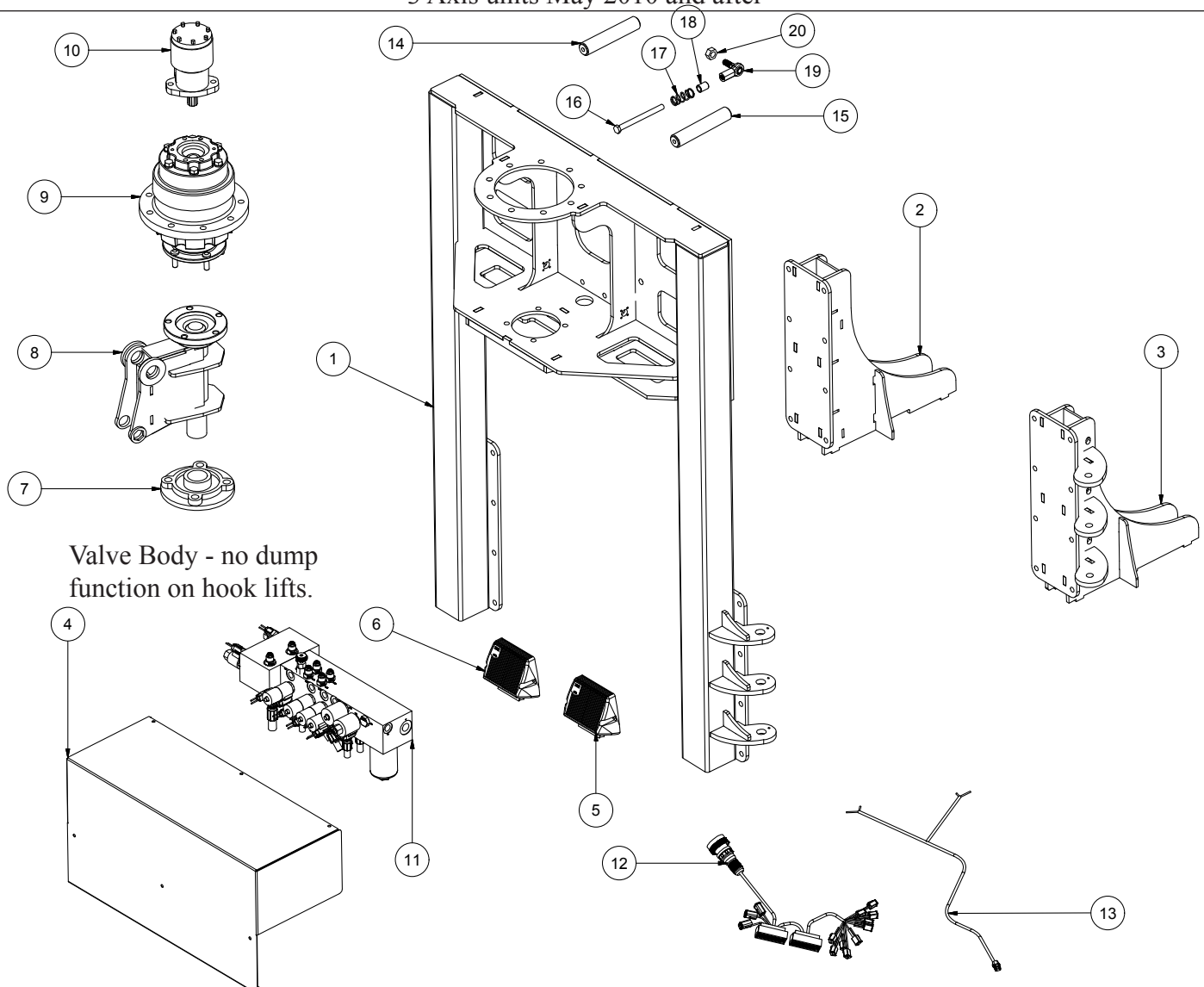
May 2010 and after



ITEM#	PART NO.	DESCRIPTION	ITEM#	PART NO.	DESCRIPTION
1	800.707B	Boom Mast	14	800.708	Bolt, 3/4-16 x 4.5" Long
2	LCT616.606MA.2	Boom Arm, Up/Down	15	800.710	Bolt, 3/4-16 x 7.5" Long
3	LCT616.606MA.1	Boom Arm, In/Out	16	800.712	Nut, 3/4"
4	SCL816.810	Hydraulic Cylinder, In/Out	17	800.709	Bolt, 3/4-16 x 5" Long
5	SCL816.814	Pin	18	800.711	Bolt, 5/8-11 x 4.5" Long
6	SCL816.812	Cylinder, Up/Down	19	800.713	Nut, 5/8"
7	800.704B	Auburn Gear Drive	20	8X.002E	Bushing, .75"IDx1"ODx1
8	800.701D	Hydraulic Motor	21	8X.002G	Bushing, 1"IDx.375"ODx1
9	SCL816.813 SCL816.813.24	Hose Support Tube, 18" Hose Support Tube, 24"	22	8X.002F	Bushing, .625"IDx.875"Dx1
10	LCT616.601MA.HD	Hose Nozzle, 45 degr.	23	8X.002D	Bushing, .625"IDx.75"Dx.5
11	LCT616.616	Hose Clamp	24	800.1011 800.1012	Cradle Arm, standard Cradle Arm, Down Exhaust
12	SDH.16.120.UC SDH.16.144.UC	Intake Hose, 10' Long Intake Hose, 12' Long	25	800.1010	Cradle
13	LCT616.603U	Hose Support Band	26	SCL816.502A1	Bearing
			27	HYF.1028	Fitting, 90 degree swivel

# 11.2 Hinged Boom Frame Assembly - 3 Axis

3 Axis units May 2010 and after



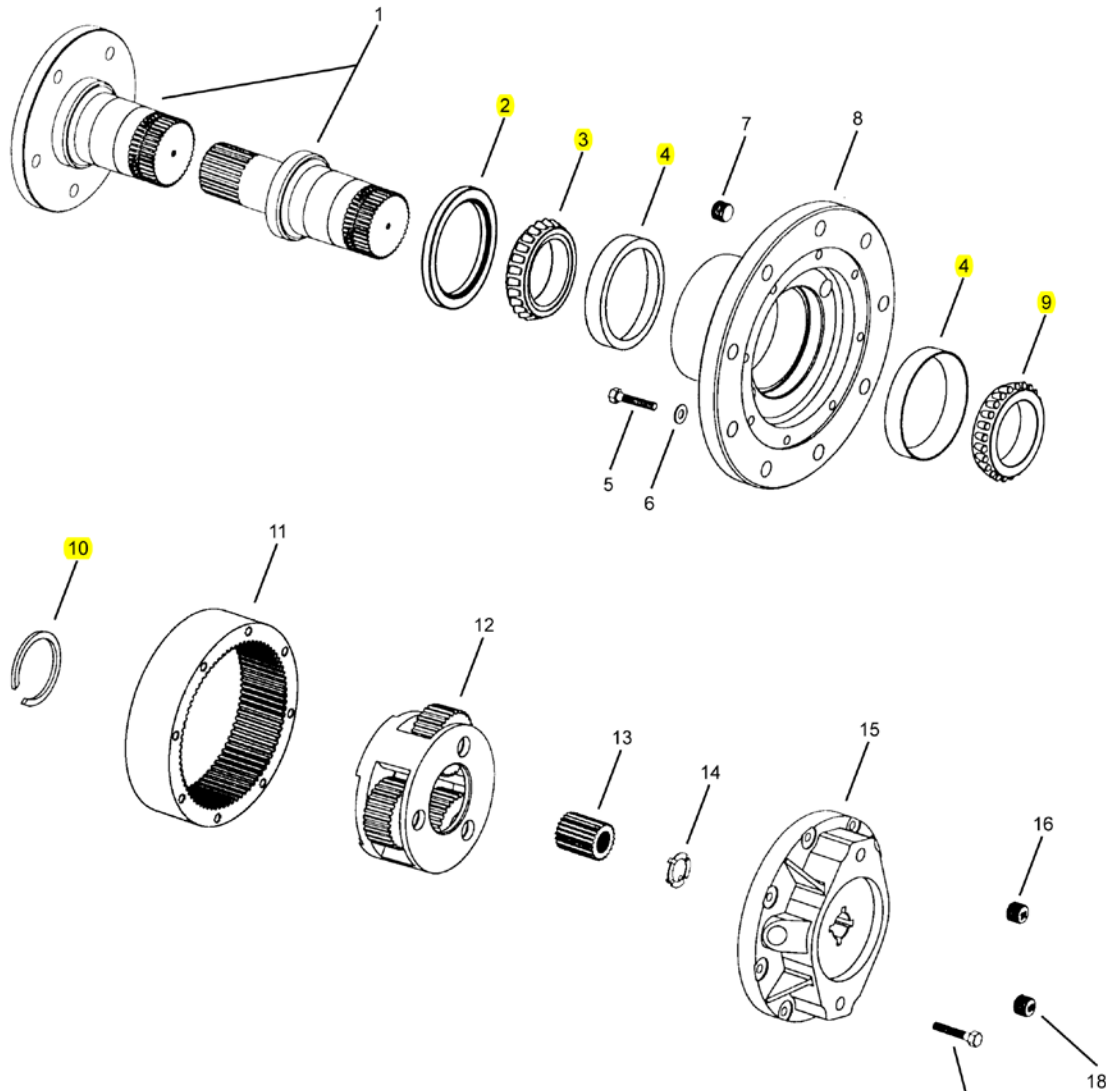
Valve Body - no dump function on hook lifts.

ITEM #	PART #	DESCRIPTION
1	800.602B	Upright Frame
2	800.601B.R	Frame Arm, rear
3	800.601B.L	Frame Arm, front
4	TCC.1100BC	Valve Body Cover
5	TCC.2001	IQAN Module XA2
6	TCC.2002	IQAN Module I/O XS2
7	SCL816.501	Bearing, 4 Bolt
8	800.707A	Boom Mast Knuckle
9	800.704B	Auburn Gear Drive (breakdown on next page)
10	800.701D	Hydraulic Motor

ITEM #	PART #	DESCRIPTION
11	TCC.1100B.1	Valve Body Assembly, does not have dump function.
12	TCC.2012	Wiring Harness, Modules
13	TCC.2015	Wiring Harness, Merc. Switch and Tailgate Switches
14	SCL816.503L	Boom Stop LH
15	SCL816.503R	Boom Stop RH
16	550.1808B	Bolt 1/2-20x6
17	800.1808	Spring
18		Spacer 1 1/4"
19	6072K44	Ball Joint
20		Nut 1/2-20

# 11.3 Auburn Gear Drive Assembly - 3 Axis

3 Axis units May 2010 and after

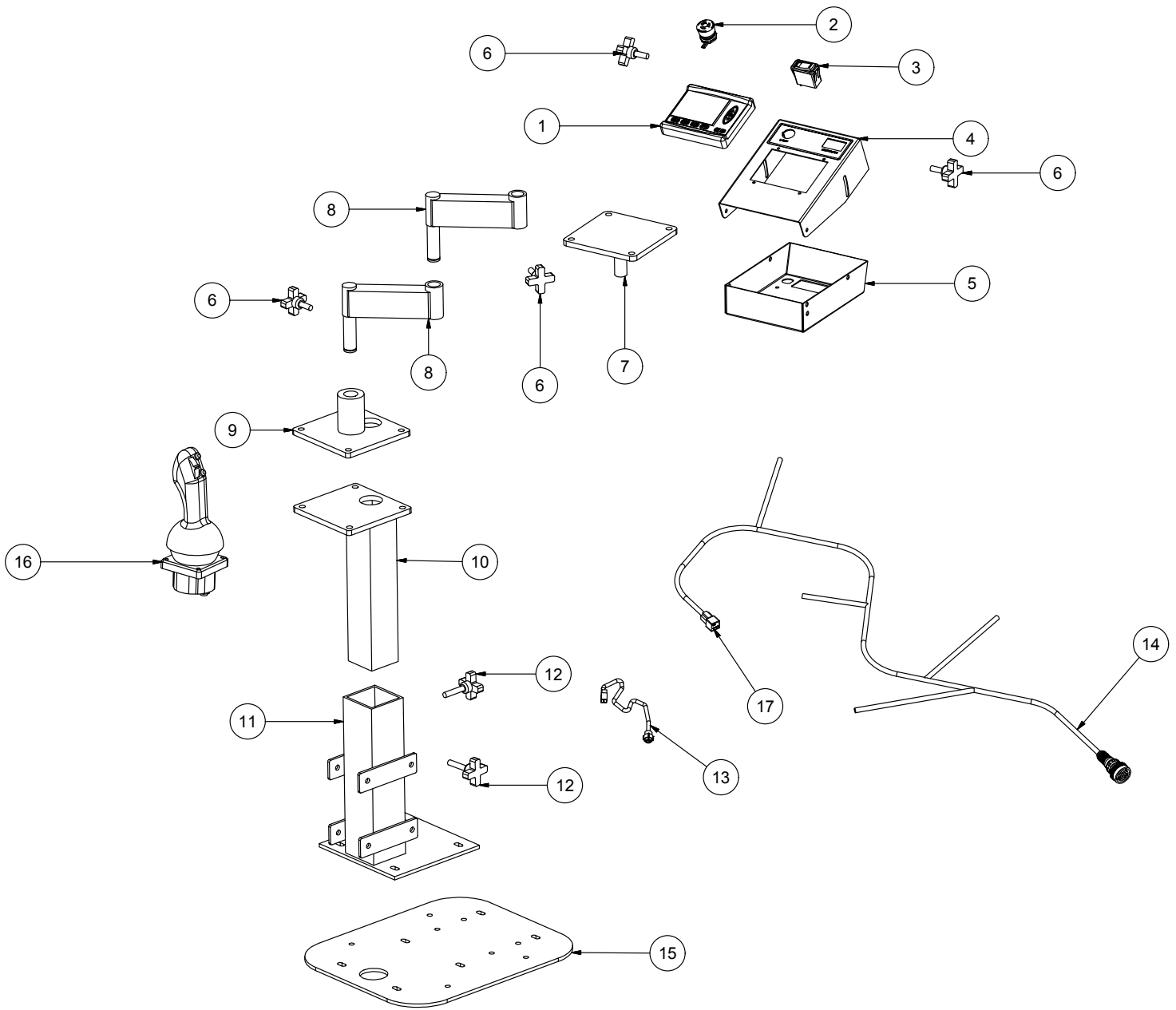


ITEM #	PART #	DESCRIPTION
1		Output Shaft or Spindle
2	14-00-044-010	Oil Seal
3	14-01-101-35	Bearing Cone
4	14-01-102-12	Bearing Cup
5		Hex Head Bolt (grade 8)
6		Flat Washer
7	03-04-101-09	Pipe Plug
8		Hub
9	04-01-101-17	Bearing Cone
10	14-02-410-003	Retaining Ring Kit
11		Ring Gear

ITEM #	PART #	DESCRIPTION
12		Carrier Assembly
13		Sun Gear
14		Thrust Washer
15		Cover
16	14-00-052-002	Magnetic Plug
17		Hex Head Bolt
18	03-04-101-01	Pipe Plug
*	641008	Bearing and Seal Kit, includes #2,3,4,8 and 10
*	641017	Seal Kit, includes #2 & #10

# 11.4 In-Cab Controls Mount - 3 Axis

3 Axis units May 2010 and after



091913

ITEM #	PART #	DESCRIPTION
1	TCC.2000	IQAN Display
2	STD.3040.B	Emergency Stop Button,2013-
3	STD.3016	Power Switch
4	TCC.2027F	Display Box Top
5	TCC.2027B	Display Box Bottom
6	TCC.1109F	Knob, Adjustment
7	TCC.1109K	Display Mounting Plate
8	TCC.1109G	Swivel
9	TCC.1109H	Swivel Mounting Plate

ITEM #	PART #	DESCRIPTION
10	TCC.1109C	Telescoping Tube
11	TCC.1109J	Receiving Tube
12	TCC.1109E	Knob, Adjustment
13	STD.4205	Wiring Harness, Joystick
14	TCC.2014C	Wiring Harness, IQAN to Engine
15	STD.3118C	Mounting Plate
16	STD.4204	Joystick, Black with yellow buttons
17	VF4-15F11	Relay on Wiring Harness
NS	TCC.2060	Diode



# Safety Section

## WARNING

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.



# DANGER

## DO NOT RIDE, SIT OR STAND ON UNIT.

**RIDING ON UNIT  
COULD RESULT IN BODILY  
HARM OR FATAL INJURY  
USE EXTREME CAUTION WHEN  
UNIT IS IN USE, OR IN MOTION.**

If the decal above is missing or damaged call ODB immediately and we will send you a replacement free of charge. Never operate a unit with damaged or missing safety decals.

 DANGER

DO NOT RIDE, SIT OR STAND ON UNIT

 DANGER

DO NOT MODIFY THE UNIT FOR RIDERS IN ANY WAY. SERIOUS INJURY OR DEATH MAY OCCUR

ODB's leaf collectors are NEVER to be used to accommodate riders. If your unit has been modified to accommodate riders, remove these modifications immediately as this can result in serious injury or death.

## Index

### A

Actuator Shaft 124  
Air Cleaner 91  
Air Deflector 102  
Alignment Tool 106  
Alternator 99  
Auburn Gear Drive 132  
Automated Door Latch 124

### B

Battery 97, 98  
Battery Cable 97  
Bearing 113, 131  
Bearing Collar 113  
Bearing Plate 113, 114  
Bearing, PTO 105  
Bearing Retainer Cover 105  
Belt Guard 113  
Blower Housing Back, 114  
Blower Housing Face 112  
Boom 131  
Boom Arm 131  
Boom Frame 132  
Boom Mast 131  
Boom Stop 132  
Bottom Exhaust 128  
Bushing 113  
Bushing with bolts 114

### C

Chaffe Eliminator 102  
Check Valve 117  
Clamp, Muffler 94  
Clip Spring 106  
Clutch Assist 107  
Clutch Bracket Arm 107  
Clutch Cable 101  
Clutch Cover 104  
Clutch Cylinder 107  
Clutch Disk 104  
Clutch Handle 106  
Coil 117  
Control Valve 117  
Counter Balance Valve 117  
Cover Plate 113  
Cradle Arm 131  
Crossover Relief Valve,  
Boom 131

Cylinder, Clutch 107

### D

Decals 14  
Disk, Clutch 104  
Door 127  
Door Latch 124  
Door Seal 123

### E

Emergency Stop Button 133  
Engine Adaptor 113  
Engine Mount 93  
Engine Wiring Harness, IQAN only  
96  
Exhaust Duct Gasket 112

### F

Fan, Chaffe 102  
Fan Shroud 95  
Filter Element 117  
Flange Bearing 102, 124, 131  
Flow Control 117  
Flow Control Valve, Boom 131  
Fluid Drive 109, 110  
Frame, Boom 132  
Fuel Cap 119  
Fuel Fitting 119  
Fuel Sender 119  
Fuel Tank 119  
Fuel Water Separator 99

### G

Gear Drive 132

### H

Harness, Jumper 125, 126  
Harness, Module 126  
Harness, Truck 126  
Hood 92  
Hood Scoop 129  
Hose Support Band 131  
Hydraulic Cylinder 124, 131  
Hydraulic Filter 116  
Hydraulic Motor 131, 132  
Hydraulic Pump 116  
Hydraulic Tank 116

### I

Impeller 114  
Inspection Door 112

Intake Flange 112  
Intake Hose 131  
IQAN Display 133  
IQAN Module 132

### J

Jack Bolt 113  
Joystick 133  
Jumper Harness 125, 126

### K

Key 113  
Key, Stepdown 105  
Key, Step Down 113  
Key, straight 114  
Kraft Fluid Drive 108

### L

License Plate Light 122  
Lift and Turn Latch 92  
Limit Switch 101, 112, 124  
Limit Switch, Door Latch 124  
Liner Set 114  
Linkage 106, 107  
Linkage Bracket 106  
Linkage Rod 106

### M

Marker Light 122  
Mercury Switch 124  
Mercury Switch Assy 124  
Module Harness 126  
Muffler 94

### O

Oil Fill Door 92  
Oil Filter 99  
Oil Pressure Sender 96  
Oil Pressure Switch 96

### P

Pilot Bearing 104  
Pivot Shaft 107  
Plug Bracket 93  
Power Band 113  
Pressure Plate 104  
Pressure Sensor 117  
Proportional Relief 117  
Proximity Switch 121  
PTO Assembly 105  
PTO Clutch 104  
PTO, Fluid Drive 110

# Index

PTO Linkage 106  
Pulley 113

## R

Radiator 95  
Radiator Access Door 92  
Radiator Cap 95  
Radiator Fan 95  
Radiator Hose 95  
Radiator Screen 92  
Relay 124  
Relief Valve 117  
Remote Clutch 100, 101  
    Adaptor 100  
    Cable 100  
Remote Throttle 100, 101  
Return Spring 106  
Rocker Ball 106

## S

Safety Decals 14  
Screen 120, 121  
Serpentine Belt 99  
Shaft 113  
Shaft Bushing, PTO 106  
Shaft, Lever 106  
Shaft Protector 114  
Shaft, PTO 105  
Sheet Metal 92  
Side Rail 93  
Solenoid 117  
Solenoid Cartridge Valve 117  
Starter Motor 99  
Starter Solenoid 98  
Step Down Key 113  
Strobe Light 122  
Switch Box 124

## T

Table of Contents 5  
Temperature Sensor 117  
Throttle Cable 101  
Throttle Connector 98  
Throw out Bearing, 104  
Torque Coupling 101

## V

Valve 117  
Valve Bod 117  
Valve Body 117  
Valve, Check 117  
Valve, Counter Balance 117

## W

Water Temperature Sender 96  
Water Temperature Switch 96  
Wiring Harness, IQAN 133  
Wiring Harness, Joystick 133  
Wiring Harness, Mercury Switch and  
    Tailgate Switches 132  
Wiring Harness, Modules 132  
Wiring Plug Bracket 92





**CAUTION**

**DO NOT ATTEMPT TO OPERATE  
OR REPAIR  
THE LEAF COLLECTOR WITHOUT FIRST  
READING AND UNDERSTANDING THIS  
MANUAL**

IF YOU HAVE ANY QUESTIONS CONCERNING THE  
INSTALLATION OR OPERATION OF THIS UNIT, PLEASE CALL  
ODB FOR ASSISTANCE BEFORE ATTEMPTING TO REPAIR OR  
OPERATE THE UNIT.

**IMPROPER USE OF ANY MACHINE CAN  
RESULT IN SERIOUS INJURY!**

**STUDY AND FOLLOW ALL SAFETY  
PRECAUTIONS BEFORE OPERATING OR  
REPAIRING UNIT**

THIS MANUAL IS AN INTEGRAL PART OF THE LEAF COLLECTOR AND SHOULD  
BE KEPT WITH THE UNIT WHEN IT IS SOLD.

**ODB COMPANY**  
5118 Glen Alden Drive  
Richmond, VA 23231  
800-446-9823

